Lafferty Equipment Manufacturing, Inc.
Installation & Operation Instructions

Model # 931112FT · 2-Way FPS-MM-FT Asphalt Release Sprayer

REQUIREMENTS

Chemical Concentrate	
Temperature	up to 160°F
Pressure	20 to 60 PSI
Compressed Air	up to 3 CFM
Hose	1/2" ID x 25'
Nozzle	2515

OPTIONS

Stainless Steel Hose Racks	
Small Stainless Steel Hose Rack	# 224145
Stainless Steel Jug Racks	
2 ½ Gal. (8 ½" x 10 ½")	# 224210
5 Gallon (12" x 12") Round/Square	# 224215
5 Gallon, Round (Locking)	# 224216
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	42 lbs.
Shipping Dimensions	35" x 29" x 11"

Lafferty
EQUIPMENT MANUFACTURING INC.

www.laffertyequipment.com
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WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

OVERVIEW

The 2-Way FPS-MM-FT Asphalt Release Sprayer is a 2- chemical spray applicator for diluting and projecting asphalt release chemicals on to truck beds or tools to prevent asphalt from sticking. It is designed for facilities that have low or fluctuating water pressure. This system features a lockable, stainless steel enclosure and uses a cost-effective 1/4" Flojet air-operated, double-diaphragm pump to draw water from an internal float tank and chemical concentrates from separate static tanks and blend them to create virtually any dilution ratio. Select between 2-chemicals or 2 different ratios of the same chemical. The solution is then projected through the hose, 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.
- 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)

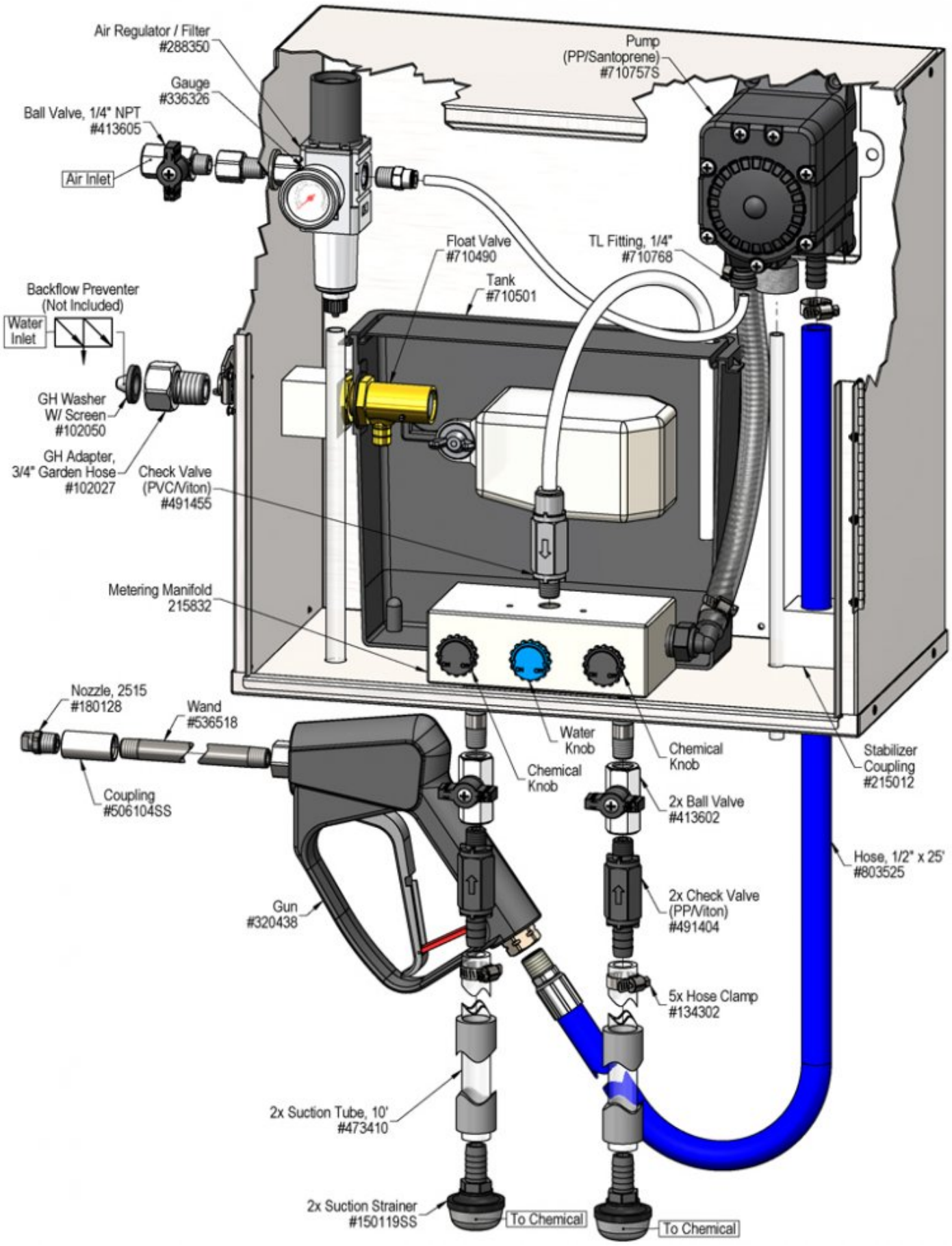
1. Mount the unit to a suitable surface above the chemical supply to prevent siphoning.
2. Connect the discharge hose.
3. When connecting to a potable water supply follow all local codes for backflow prevention.
4. Connect water supply, flush any new plumbing of debris before connecting. If water piping is older and has known contaminants install a filter.
5. Turn on water supply and fill the integral tank. Ensure the float turns off properly and does not overfill. It has been factory set. If it overflows remove lid and adjust the float.
6. Connect air supply, if air line is older and has known contaminants install a filter.

How to Set Your Dilution Ratio:

- The adjustment knobs allow you to achieve wide range of dilution ratios.
- Turn adjustment knobs counterclockwise to increase flow or clockwise to decrease flow.
- For a starting place turn the water knob completely clockwise (closed) then turn 2 turns counterclockwise (open).
- Then turn the chemical knob completely clockwise (closed) then counterclockwise (open) in 1/4 to 1/2 turn increments till required dilution ratios are achieved.
- If ratios can't be achieved with the chemical knob all the way counterclockwise start turning water knob clockwise to shift more draw to the chemical side.
- For weaker solutions than the knobs can achieve use a metering tip to further reduce the chemical flow (some units do not include metering tips standard).

TO OPERATE

1. Open the inlet and one chemical ball valves, point wand in a safe direction and pull the trigger on the gun.
2. Final chemical dilution adjustments will now have to be made based on results.
3. Release the trigger gun when finished and close the air and chemical ball valves and release pressure in hose.


Air Regulator / Filter
#288350
Gauge
#336326
Ball Valve, 1/4" NPT
#413605
Air Inlet
Pump
(PP/Santoprene)
#710757S
Float Valve
#710490
TL Fitting, 1/4"
#710768
Tank
#710501
Backflow Preventer
(Not Included)
Water
Inlet
GH Washer
W/ Screen
#102050
GH Adapter,
3/4" Garden Hose
#102027
Check Valve
(PVC/Viton)
#491455
Metering Manifold
215832
Nozzle, 2515
#180128
Wand
#536518
Coupling
#506104SS
Water
Knob
Chemical
Knob
Chemical
Knob
2x Ball Valve
#413602
Stabilizer
Coupling
#215012
Hose, 1/2" x 25'
#803525
Gun
#320438
2x Check Valve
(PP/Viton)
#491404
5x Hose Clamp
#134302
2x Suction Tube, 10'
#473410
2x Suction Strainer
#150119SS
To Chemical
To Chemical

Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Air pump will not run or pump solution.	1,2,6	7,12,13
B) Unit will not draw chemical or water.	3,6	8,9,10,11,12
C) Using too much chemical	4	
D) Chemical not effective.	5	
E) Pump runs too fast with no output.		8,9,10,11,12

Possible Cause / Solution

Startup

1. **Air adjustment too low**
   - Open air ball valve fully. Adjust air regulator slowly clockwise. Optimum air pressure is 60 PSI.
2. **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 etc.)**
   - WAIT several seconds to allow the ice particles to melt and blow out, at which time the pump will automatically resume pumping.
3. **Water or chemical tube not immersed in container or container empty**
   - Immerse tube or replenish.
4. **Dilution too strong**
   - Turn chemical knob slightly clockwise or water knob counterclockwise.
5. **Dilution too weak**
   - Turn chemical knob slightly counterclockwise or water knob clockwise.
6. **Discharge hose kinked**
   - Straighten the hose.

Maintenance

7. **Air regulator clogged or failed**
   - Clean or replace.
8. **Water or chemical check valve stuck or clogged**
   - Clean or replace.
9. **Chemical or water strainer clogged up**
   - Clean or replace.
10. **Vacuum leak in metering manifold**
    - Tighten the connection(s).
11. **Chemical or water tube stretched out where tube slides over check valves or pin hole/cut in tube sucking air.**
    - Cut off end of tube or replace tube.
12. **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
13. **Use of an oiler in the airline will cause pump to stall**
    - Use only clean, dry air.

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.