

Lafferty Equipment Manufacturing, LLC Installation & Operation Instructions

Model # 974312 · WPS W-25 Asphalt Release Spray-All

REQUIREMENTS

Chemical Concentrate
Static Tank of Water

Compressed Air up to 4 CFM

Hose 1/2" ID x 25'

Nozzle 2540

OPTIONS

Stainless Steel Hose Racks

Small Stainless Steel Hose Rack # 224145

Heater Assembly

Retro-Fit Heater Assembly # 720981

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

Poly/Teflon and Kynar/Teflon Air Pumps

(Poly/Santoprene Standard)

Pump, WR Poly/Teflon, 3/8", 7GPM
Max # 710911

Pump, WR Kynar/Teflon, 3/8", 7GPM
Max # 710912

Alternate Chemical Check Valve - Viton Standard

Check Valve, Chemical, PP(W), 1/4"
(EPDM) # 491401



www.laffertyequipment.com

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

OVERVIEW

The WPS W-25 Asphalt Release Spray-All is an air driven 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 with low or no water pressure. A rugged 3/8" Warren Rupp air pump draws water from a static tank and provides the water pressure to power a venturi injector. The injector draws chemical concentrate from any container and blends it into the water stream to create an accurately diluted solution using precision metering tips. The solution is then projected through the discharge 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.

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

1. Mount the unit above chemical and water containers to prevent siphoning.
2. Securely attach the larger clear suction tube to the pump and place the strainer in a static container of water.
3. DO NOT attach to a PRESSURIZED water source.
4. Attach a compressed airline to the inlet ball valve. DO NOT TURN ON

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.

- For the strongest dilution ratio do NOT install a colored 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.
- Select the tip color that is closest to your desired chemical strength and thread it into the tip holder. **DO NOT OVER-TIGHTEN.**
- Push the chemical tube over the check valve barb and place the suction tube in the chemical concentrate.
- If necessary, cut suction tube(s) to length before attaching suction strainer.

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.

- 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.
- The unit has been tested and is ready to operate. The air pressure is preset at 70 PSI. This is the optimum pump pressure. Test "as is" before making any adjustments.

1. With the wand in hand direct the discharge in a safe direction. Open the air and discharge ball valve to begin.
2. Wait several seconds for pump to prime and the chemical to be drawn up the tube and all the air to be expelled from the hose, this will take several seconds the first time.
3. Final dilution ratio adjustments will now have to be made. You may have to try different sized metering tips until application results are acceptable. Once this is set you are ready to start application.
4. When spraying is complete: Close the discharge ball valve. Return to the unit and close the air ball valve. Briefly re-open the discharge ball valve to relieve pressure in the hose.
5. If applicable rinse the surface before the spray dries.

METERING TIP SELECTION

METERING TIP COLOR	OZ/MIN	DILUTION RATIO @ 50 PSI
Brown	0.56	329:1
Clear	0.88	209:1
Bright Purple	1.38	134:1
White	2.15	86:1
Pink	2.93	63:1
Corn Yellow	3.84	48:1
Dark Green	4.88	38:1
Orange	5.77	32:1
Gray	6.01	31:1
Light Green	7.01	26:1
Med. Green	8.06	23:1
Clear Pink	9.43	20:1
Yellow Green	11.50	16:1
Burgundy	11.93	15:1
Pale Pink	13.87	13:1
Light Blue	15.14	12:1
Dark Purple	17.88	10:1
Navy Blue	25.36	7:1
Clear Aqua	28.60	6:1
Black	50.00	4:1
No Tip Ratio Up To:		3:1

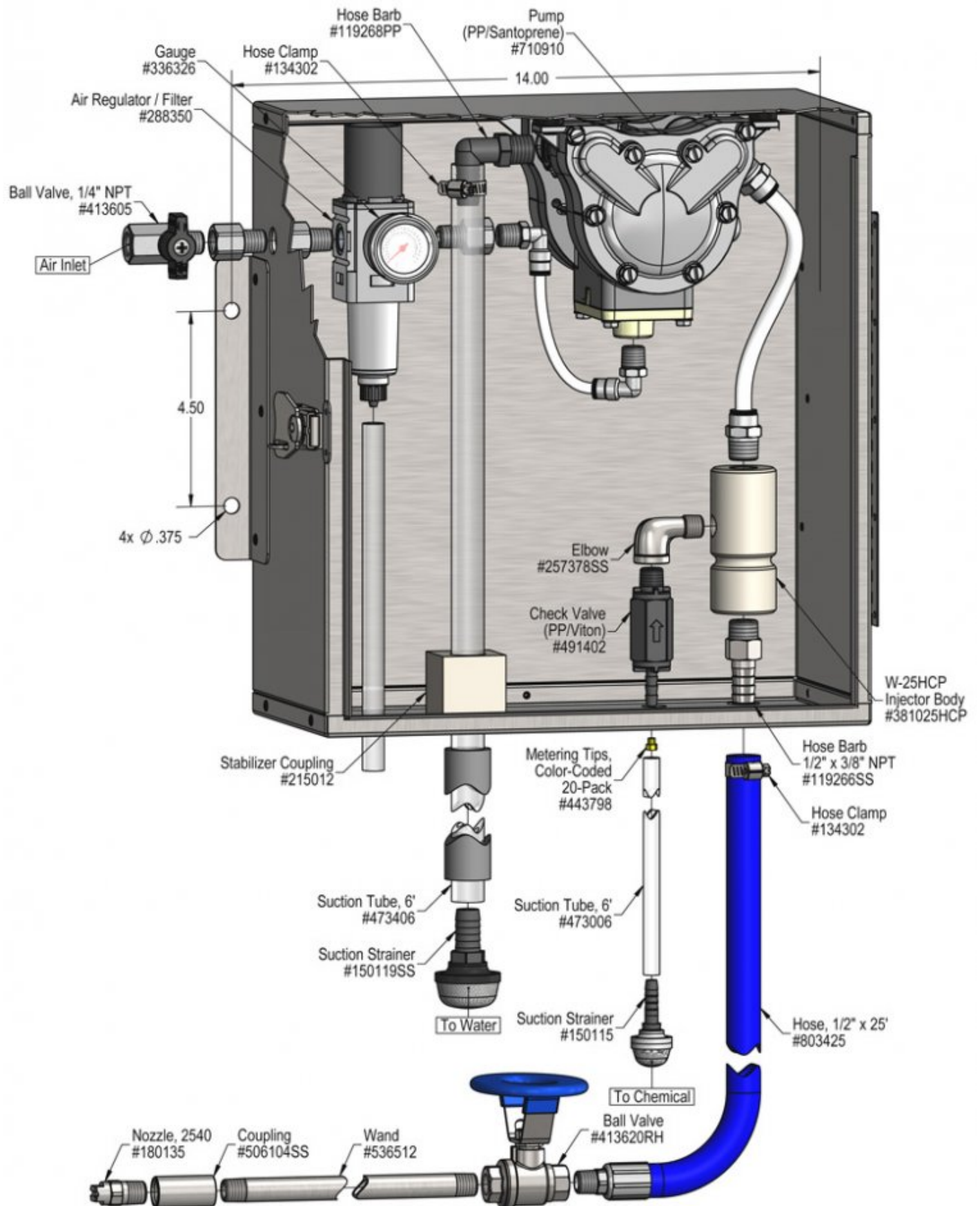
The dilution ratios above are approximate values. Due to chemical viscosity, actual dilution ratios may vary.

FORMULA

- GPM × 128 ÷ Desired Dilution Ratio = 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
50	1.44



Troubleshooting Guide

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

Possible Cause / Solution	
Startup	Maintenance
1. Air adjustment too low <ul style="list-style-type: none"> Open air ball valve fully. Adjust air regulator slowly clockwise. Optimum air pressure is 90 PSI. 2. Water or chemical tube not immersed in container or container empty <ul style="list-style-type: none"> Immerse tube or replenish. 3. Dilution too strong <ul style="list-style-type: none"> Use a smaller metering tip. 4. Dilution too weak <ul style="list-style-type: none"> Use a larger metering tip. 5. Discharge hose kinked <ul style="list-style-type: none"> Straighten the hose. 	6. Air regulator clogged or failed <ul style="list-style-type: none"> Clean or replace. 7. Water or chemical check valve stuck or clogged <ul style="list-style-type: none"> Clean or replace. 8. Chemical or water strainer clogged up <ul style="list-style-type: none"> Clean or replace. 9. Chemical or water tube stretched out where tube slides over hose barbs or pin hole/cut in tube sucking air. <ul style="list-style-type: none"> Cut off end of tube or replace tube. 10. Problem with air pump <ul style="list-style-type: none"> Refer to air pump instruction manual 11. Use of an oiler in the airline will cause pump to stall <ul style="list-style-type: none"> 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.

