

Lafferty Equipment Manufacturing, LLC Installation & Operation Instructions

Model # 932605-V • 1-Way APV PFPR Concrete Sprayer

REQUIREMENTS

Chemical Concentrate

Water

Temperature	up to 160°F
Pressure	20 to 125 PSI
Flow	0.80 GPM @ 20 PSI
Supply Line	1/2"

Compressed Air up to 3 CFM

Hose 1/2" ID x 50'

Nozzle 2520

OPTIONS

Stainless Steel Hose Racks

Large Stainless Steel Hose Rack # 224150

Stainless Steel Jug Racks

2 ½ Gal. (8 ½" x 10 ½") # 224210

5 Gallon (12" x 12") Round/Square # 224215

To Dilute and Dispense Ready-To-Use Acid Solution

414HC Acid Mixing Station # 980415

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



Lafferty
EQUIPMENT MANUFACTURING LLC
CFS TECHNOLOGIES

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

OVERVIEW

The 1-Way APV PFPR Concrete Sprayer is a chemical spray applicator for projecting highly corrosive chemicals such as those used to remove concrete and for aluminum brightening. It is designed for facilities with low or no water pressure. This acid-resistant system uses a Flojet air-operated, double-diaphragm pump to draw chemical concentrate and blend it into the water stream at ratios from 1:11 to neat chemical. A uniform spray is projected through the hose, wand and fan nozzle on to any surface.

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 chemicals that are not compatible with Viton diaphragms.

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. To prevent blocking the small water jets in the injector body, flush any new plumbing of debris before connecting. If water piping is older and has known contaminants, install a filter.
5. Connect air supply. If air line is older and has known contaminants install a filter.

Setting the Dilution Ratio

By turning the chemical dilution needle valve in slight increments you control the chemical dilution ratio, thus allowing you to achieve virtually any dilution ratio between 11-1 and 1-1 or neat chemical. See Dilution Ratio Setting Guideline Chart for guidance.

TO OPERATE

- **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 preset at 30 PSI.**
- **DO NOT GO OVER 30 PSI.**

1. With the spray wand in hand direct the discharge in a safe direction and open the discharge ball valve and the air ball valve.
2. Final chemical concentration settings have to be made based on results.
3. When spraying is complete:
 - Close the discharge ball valve.
 - Promptly return to the unit and close the air ball valve.
 - Briefly re-open the discharge ball valve to relieve pressure in the hose.
4. Rinse before the surface dries.

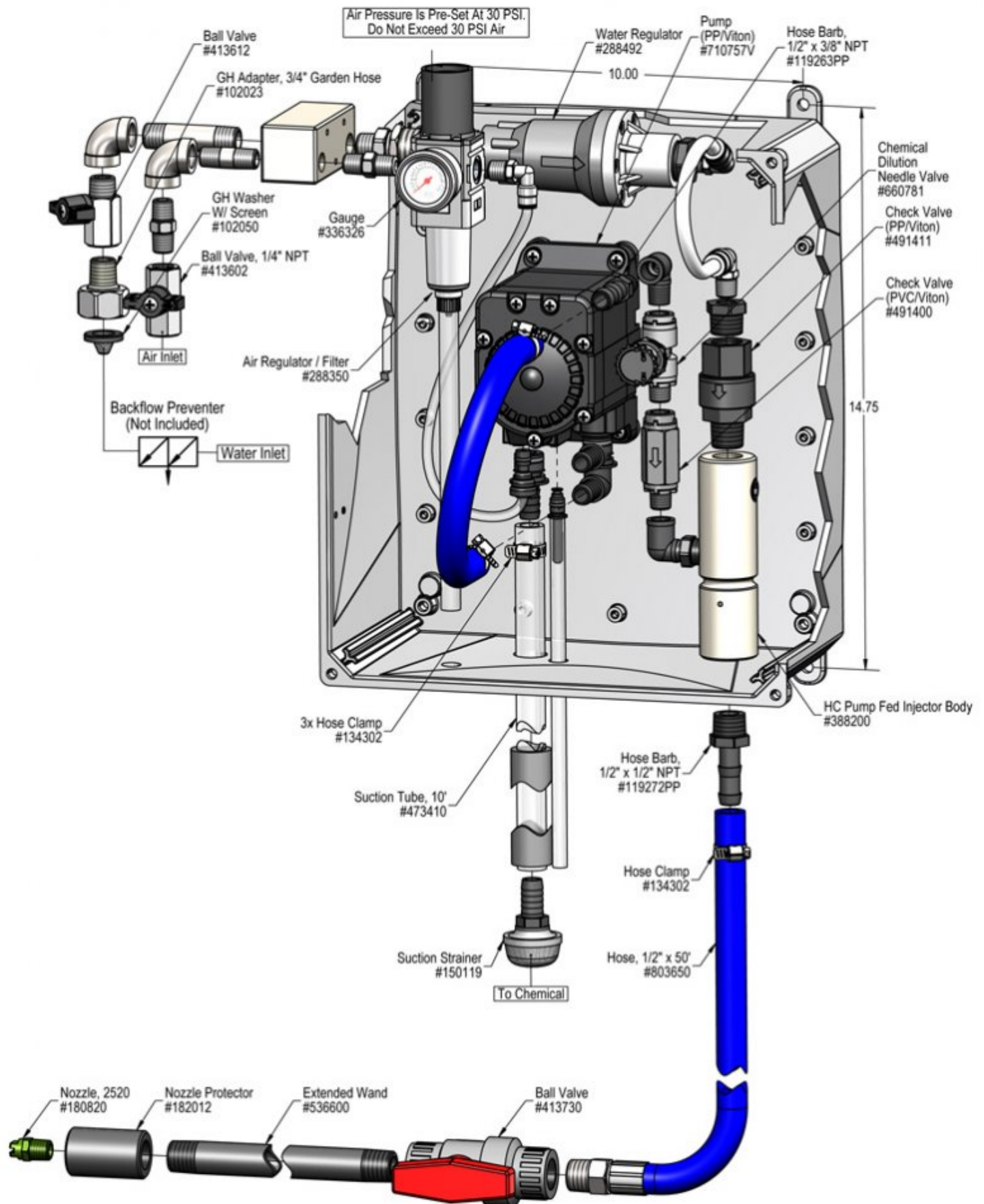
DILUTION RATIO SETTING

GUIDELINES

TURN NEEDLE VALVES

COUNTERCLOCKWISE TO OPEN

Chemical Needle Valve	Water	Water/ Chemical Dilution Ratio
1/8 Turn	On	11:1
1 Turn	On	3:1
2 Turns	On	2:1
4 Turns	On	1.5:1
5 Turns or more	On	1:1
Wide Open	Off	Neat Chemical
Air Pressure is pre-set at 30 PSI. Do not exceed 30 PSI air. Water Flow Rate remains constant at 0.81 GPM		



Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Air pump will not pump or runs with no output.	1, 2, 3, 4, 6	8, 9, 10
C) Using too much chemical	1, 5	
D) Cleaning results not acceptable	3, 4, 7	

Possible Cause / Solution	
Startup	Maintenance
<ol style="list-style-type: none"> 1. Inlet ball valves partially closed. MAXIMUM air pressure is 30 PSI <ul style="list-style-type: none"> ◦ Completely open air inlet ball valve. 2. Discharge ball valve not completely open or discharge hose kinked <ul style="list-style-type: none"> ◦ Completely open the discharge ball valve / straighten hose 3. Solution tube not completely immersed in chemical or container empty <ul style="list-style-type: none"> ◦ Immerse tube or replenish chemical. 4. Dilution too weak <ul style="list-style-type: none"> ◦ Increase chemical by turning chemical needle valve counterclockwise. 5. Dilution too strong <ul style="list-style-type: none"> ◦ Decrease chemical by turning chemical needle valve clockwise. 6. 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 & other factors) <ul style="list-style-type: none"> ◦ WAIT several seconds to allow the ice particles to melt and blow out, at which time the pump will automatically resume pumping. 7. Soil has hardened on surface <ul style="list-style-type: none"> ◦ Always rinse before it dries. 	<ol style="list-style-type: none"> 8. Chemical strainer blocked <ul style="list-style-type: none"> ◦ Clean or replace 9. Air regulator clogged or failed <ul style="list-style-type: none"> ◦ Clean or replace 10. Problem with air pump <ul style="list-style-type: none"> ◦ Refer to air pump instruction manual. ◦ https://www.xylem.com/en-us/brands/Flojet/flojet-products/g57-air-operated-double-diaphragm-pump ◦ Replace pump.

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.

