

# LAFFERTY EQUIPMENT MANUFACTURING, INC. Installation & Operation Instructions

Model # 975075 • Uni-Body A-25 Airless Foamer Complete

## REQUIREMENTS

### Water:

Pressure range..... 35 to 135 PSI  
Temp. range..... Ambient to 160° F  
Flow range ..... Up to 2 gpm

### Hose:

I.D. .... 1/2" ONLY  
Standard Length ..... 50'

## OPTIONS

### All Stainless Steel Accessories

- Hose Rack ..... # 224150
- Jug Racks
  - 1 Gallon
    - Round ..... # 224200
    - Square ..... # 224205
  - 2 ½ Gallon (8 ½" x 10 ½")..... # 224210
  - 5 Gallon (12" x 12")..... # 224215



**READ ALL  
INSTRUCTIONS BEFORE  
USING EQUIPMENT!**

[www.LaffertyEquipment.com](http://www.LaffertyEquipment.com)

501-851-2820



## Principles of Operation

This is a venturi airless foamer that requires water pressure and foaming chemical concentrate to generate a powerful, clinging foam and project it unto any surface. It will siphon chemical concentrates from any sized container. The supplied metering tips provide up to 21 dilution ratios.



## Safety & Operational Precautions

- Manufacturer assumes no liability for the use or misuse of this unit.
- Backflow Prevention: If you are connecting to a potable water supply, be sure to follow all local codes for backflow prevention.
- Wear protective clothing, gloves and eyewear when working with chemicals.
- Always direct the discharge away from people and electrical devices.
- For pressures over 100 PSI, remove the discharge ball valve.
- Follow the chemical manufacturer's safe handling instructions.

### TO INSTALL (Refer to diagram, next page.)

#### Backflow Prevention: If you are connecting to a potable water supply, be sure to follow all local codes for backflow prevention.

1. Mount the unit to a suitable surface above chemical supply to prevent siphoning.
2. Connect the hose as shown in the diagram.
3. Select chemical dilution ratio by selecting and installing a metering tip into each chemical check valve. (For the strongest possible chemical dilution ratio, do not install a metering tip.)

**How to Select the Correct Metering Tip** - See chemical label for dilution ratio recommendation or consult your chemical supplier.

- The dilution ratios provided in the Metering Tip Selection Chart, at right, are based on water-thin chemical.
  - Due to varying chemical viscosities, you may need to increase/decrease the metering tip size.
  - If you have water pressure other than the example, use the Metering Tip Selection Formula.
4. After metering tip is installed, push the chemical tube over the check valve and immerse the chemical strainer into your chemical concentrate.
  5. Connect water supply. To prevent blocking the small water jets in the injector, flush any new plumbing of debris before connecting station. If water piping is older and has known contaminants, install a water filter.

### TO OPERATE

1. Make sure the discharge ball valve is closed. Completely open the water ball valve and move to the area to be foamed. Open the discharge ball valve and begin application.
2. When finished, close the discharge ball valve. Return to the unit and close the water ball valve. Briefly re-open the discharge ball valve to relieve pressure in the hose. Rinse before the foam dries.

Metering Tip Selection		
Metering Tip Color	Oz. per Min.	EXAM- PLE: Dilution Ratio @ 40 PSI
Brown	.62	277:1
Clear	.91	188:1
Bright Purple	1.7	104:1
White	2.3	76:1
Pink	3.3	52:1
Corn Yellow	4.0	43:1
Dark Green	5.0	34:1
Orange	6.0	29:1
Gray	6.8	25:1
Light Green	8.1	21:1
Med. Green	9.1	19:1
Clear Pink	11.9	14:1
Yellow Green	13.4	13:1
Burgundy	15.3	11:1
Pale Pink	16.9	10:1
Light Blue	18.0	10:1
Dark Purple	22.5	8:1
Navy Blue	33.1	—
Clear Aqua	39.3	—
Black	59.0	—
No Tip	—	6.6:1

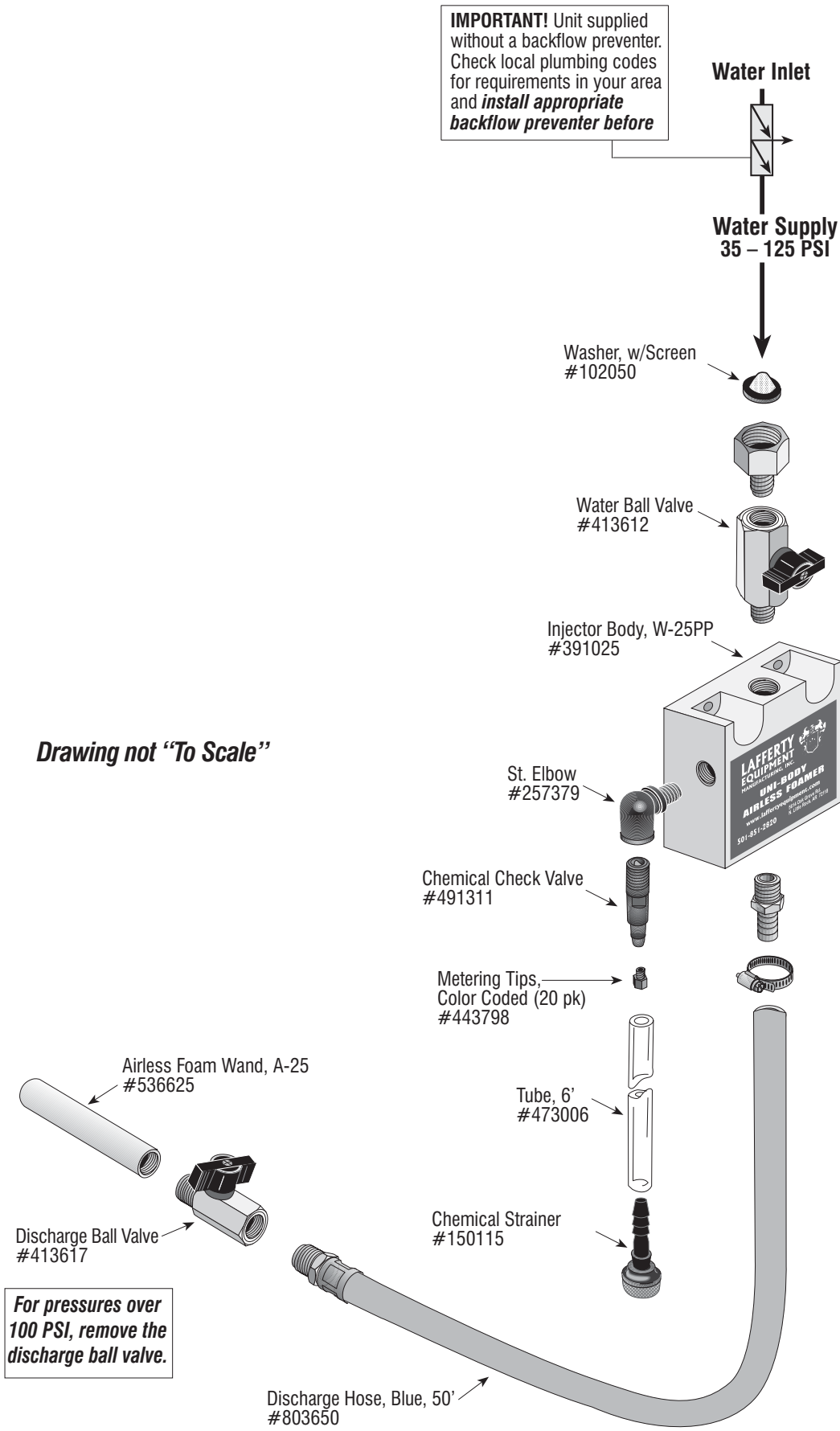
The dilution ratios provided above are approximate values. Your actual dilution ratio may be higher or lower due to variation in chemical viscosity.

Metering Tip Selection Formula	
(GPM x 128)	See chart below for GPM and convert to oz. per min.
÷	
Dilution Ratio	20:1, 30:1, etc.
=	
Oz. per Min.	Match to nearest number in chart above.

Water Flow Rate Chart	
Water Pressure	Water Flow Rate
PSI	GPM
	A-25
40	1.34
50	1.46
60	1.54
70	1.59
80	1.76
90	1.80

**⚠ Turn off all ball valves and relieve pressure in hose when unit is not in use.**

**IMPORTANT!** Unit supplied without a backflow preventer. Check local plumbing codes for requirements in your area and *install appropriate backflow preventer before*



*Drawing not "To Scale"*

**For pressures over 100 PSI, remove the discharge ball valve.**

# Troubleshooting Guide

## Model # 975075 • Uni-Body A-25 Airless Foamer Complete

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Unit will not draw chemical.	1, 5, 6, 7, 8	10, 11, 12, 13, 14, 15
B) Foam does not clean or foam properly.	2, 4, 5, 7, 8, 9	10, 11, 12, 13, 14, 15
C) Using too much chemical.	3	
D) Water backing up into chemical container.	10	

### Possible Cause / Solution

Startup	Maintenance
<p><b>1. Inlet ball valve not completely open</b></p> <ul style="list-style-type: none"> <li>Completely open the water and discharge ball valves.</li> </ul> <p><b>2. Not enough chemical - metering tip too small</b></p> <ul style="list-style-type: none"> <li>Install larger metering tip.</li> </ul> <p><b>3. No metering tip installed or metering tip too large</b></p> <ul style="list-style-type: none"> <li>Install smaller metering tip.</li> </ul> <p><b>4. Improper chemical</b></p> <ul style="list-style-type: none"> <li>Ensure product is recommended for foaming and the application.</li> </ul> <p><b>5. Chemical tube not immersed in chemical or chemical depleted</b></p> <ul style="list-style-type: none"> <li>Immerse tube or replenish.</li> </ul> <p><b>6. Discharge hose too long or wrong size or kinked (SEE REQUIREMENTS)</b></p> <ul style="list-style-type: none"> <li>Straighten the hose or replace hose.</li> </ul> <p><b>7. Foam wand clogged or scaled up</b></p> <ul style="list-style-type: none"> <li>Chemical build-up may have formed, soak entire foam wand in de-scaling acid.</li> </ul> <p><b>8. Water pressure or water volume too low/inlet piping too small causing poor chemical pick up</b></p> <ul style="list-style-type: none"> <li>Increase water pressure or water volume (SEE REQUIREMENTS).</li> </ul> <p><b>9. Soil has hardened on surface; always rinse before it dries</b></p> <ul style="list-style-type: none"> <li>Reapplication may be necessary.</li> </ul>	<p><b>10. Chemical check valve stuck or failed</b></p> <ul style="list-style-type: none"> <li>Clean or replace.</li> </ul> <p><b>11. Chemical strainer or metering tip partially blocked</b></p> <ul style="list-style-type: none"> <li>Clean or replace chemical strainer and/or metering tip.</li> </ul> <p><b>12. Chemical tube stretched out or pin hole/cut in chemical tube (sucking air in)</b></p> <ul style="list-style-type: none"> <li>Cut off end of tube or replace tube.</li> </ul> <p><b>13. Vacuum leak in chemical pick-up connections</b></p> <ul style="list-style-type: none"> <li>Tighten the connection.</li> </ul> <p><b>14. Water strainer clogged or missing/injector inlet orifice clogged</b></p> <ul style="list-style-type: none"> <li>Clean or replace strainer; check/clean inlet orifice for obstructions. DO NOT DRILL OUT.</li> </ul> <p><b>15. Chemical build-up may have formed in the injector body causing poor or no chemical pick-up</b></p> <ul style="list-style-type: none"> <li>Follow Preventive Maintenance instructions below, using hot water and/or de-scaling acid. When there is no draw at all, carefully remove fittings and soak entire injector body in de-scaling acid.</li> </ul>

**PREVENTIVE MAINTENANCE:** When the unit will be out of service for extended periods, remove chemical tube from chemical concentrate and place in water. Completely open the water and discharge ball valves for a few seconds to flush chemical and help prevent chemical build-up. Check and/or clean chemical strainer; replace if missing.