



USER MANUAL

MODEL:

SLX-BP-VF

BOOSTED VENTURI FOAMER - SINGLE STATION

English (Original Instructions)

Updated: 02/10/23





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General Precautions

- For proper performance **do not** substitute nozzle or alter the diameter or length of the included hose.
- **Never** point the spray wand at another individual or electrical devices. Always direct the discharge away.
- **Never** leave water or air supply inlet ball valves on when unit is not in use.
- **Never** mix chemicals without consulting the chemical manufacturer first.
- Manufacturer assumes no liability for the use or misuse of this unit or chemical compatibility.
- Specifications and parts are subject to change without notice.
- **Do not** connect a discharge ball valve to this unit or kink the hose to stop the flow of foam
- Specifications and parts are subject to change without notice.



Safety Warning



- All personnel servicing this unit must be familiar with the information contained in this manual. Follow all installation and maintenance instructions.
- Follow safety instructions of chemical manufacturer (SDS).
- Wear proper PPE when working with chemicals (gloves, safety glasses, face shield, etc.)
- Always follow plant and OSHA guidelines.
- Avoid contact of chemicals with skin and eyes. If contact occurs, see SDS sheet for further first aid measures.
- Follow all local codes for backflow prevention when connecting to a potable water supply.
- **WARNING: Severe damage to your facility, or contamination of your water supply, can occur without proper backflow prevention.**

PROTECT THE ENVIRONMENT

Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe way according to local waste disposal regulations.



Always remember to recycle.

USER MANUAL: SLX-BP-VF

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



Overview

The SLX wall mounted water driven boosted pressure foamer is a medium volume decentralized foaming system that works with boosted water pressure (125-350PSI) to foam chemistry and detergents at a range of flow rates. The unit features a split body design for easy servicing and maintenance.

The included instructions apply to all venturi foamers regardless of insert size. Model specific specifications will be identified as necessary.

Requirements

- Water Pressure: 125 - 350 PSI

NOTE: A back flow preventer must be installed in the water supply to this unit, per local codes.

- Max Temperature: 140°F
- Air Pressure: 40 PSI recommended
- Chemical compatibility: Chemical products used with this equipment must be formulated for this type of application and compatible with unit materials (see specifications).

NOTE: For more information on chemical compatibility consult the chemical manufacturer.

Specifications

- Materials of Construction:
 - Body: Stainless Steel
 - Enclosure: 304SS
 - Wetted Parts: PVC, Polypropylene, AFLAS, and Stainless Steel
- Weight:
 - Foamer with enclosure: 9-11 lbs.
 - Hose Assembly: 10 - 17.5 lbs.
 - Spray wand: 0.5-1 lbs.
- Dimensions: 6" x 15" x 8¹/₄"

Insert #	Coverage Time (sq/ft per min.)	Unit Flow Rate (GPM @ 250PSI)	Hose Size (OD x L)	Spray Nozzle
V28	500	2.8	3/4" x 50'	65300
V90	750	9.0	1" x 50'	00400

Flow rates and coverage time may vary depending on supply pressure, metering tip size, and chemical viscosity. Always test prior to normal operation to ensure facility requirements are met for cleaning procedures.



More Information

Please contact Clean Logix at:

(616)-438-9200 or **sales@clean-logix.com**

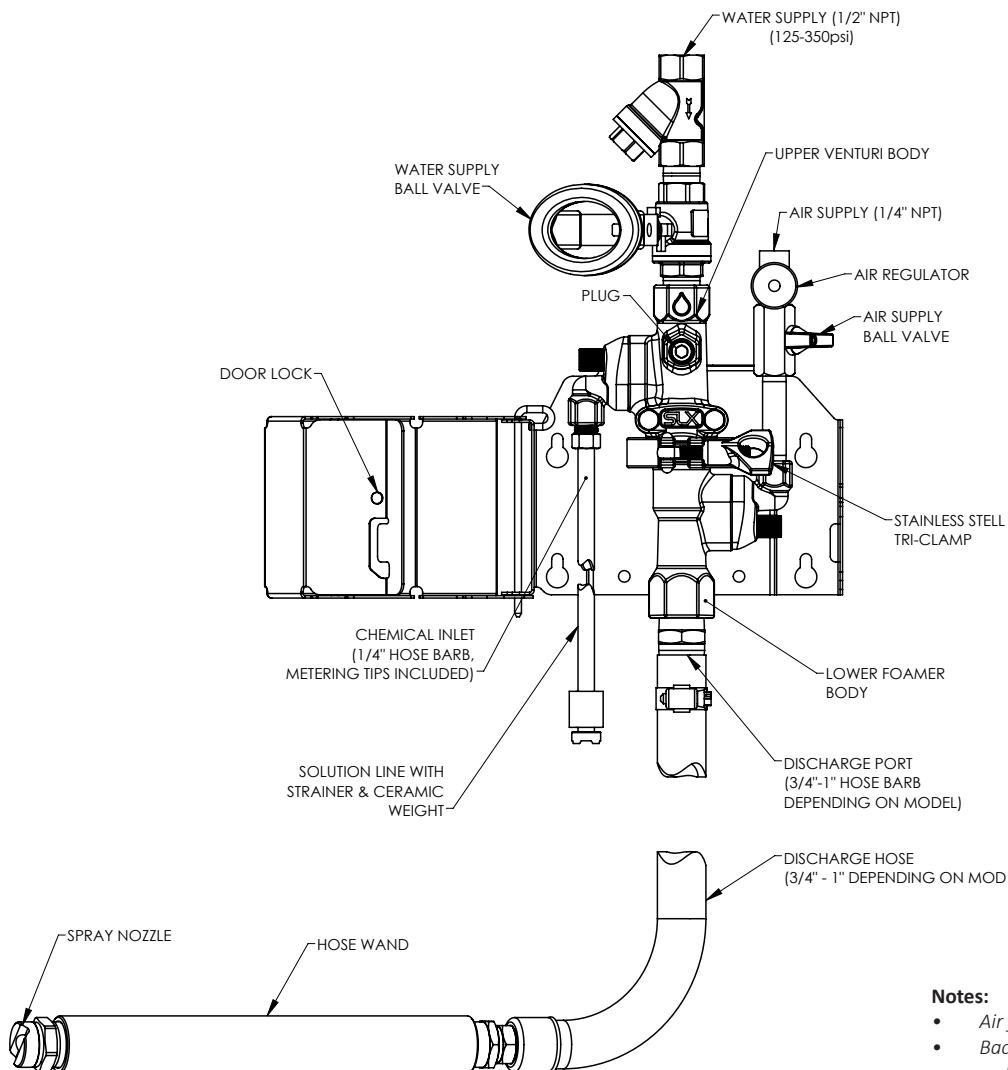
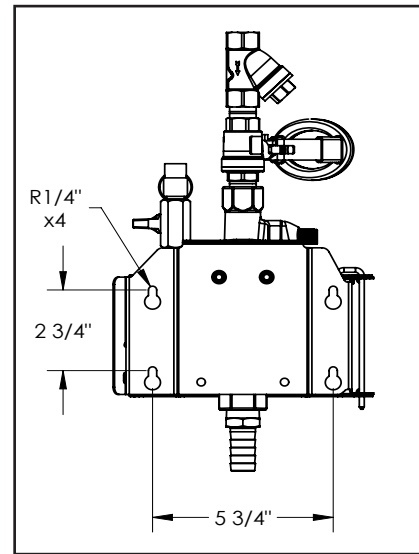
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Installation

1. Mount the enclosure to the wall.
2. Flush air and water supply lines to ensure they are flowing properly and free of debris.
3. Connect air to air inlet (1/4" NPT) and water to water inlet (1/2" NPT)
4. Connect discharge hose and spray wand to the bottom hose barb and secure with hose clamp.



Notes:

- Air filter recommended.
- Backflow prevention required - consult local codes.
- System may vary depending on model and optional upgrades.

Dilution

Metering Tips

1. Place chemical container below unit.
2. Using the included metering tips, identify which tip is appropriate for your dilution ratio.

NOTE: Review dilution recommendations for the chemistry being used. GPM's calculated at 40 PSI water pressure. For different pressure estimates use following formula:

$$\text{Dilution Ratio} = \frac{(\text{GPM} \times 128)}{\text{Oz/Gal}}$$

3. Thread metering tip into hose barb on chemical inlet to install. [Fig 5.1]
4. Connect suction line to hose barb.
5. Connect suction line in chemical container (suction line with ceramic weight and strainer included for this purpose).

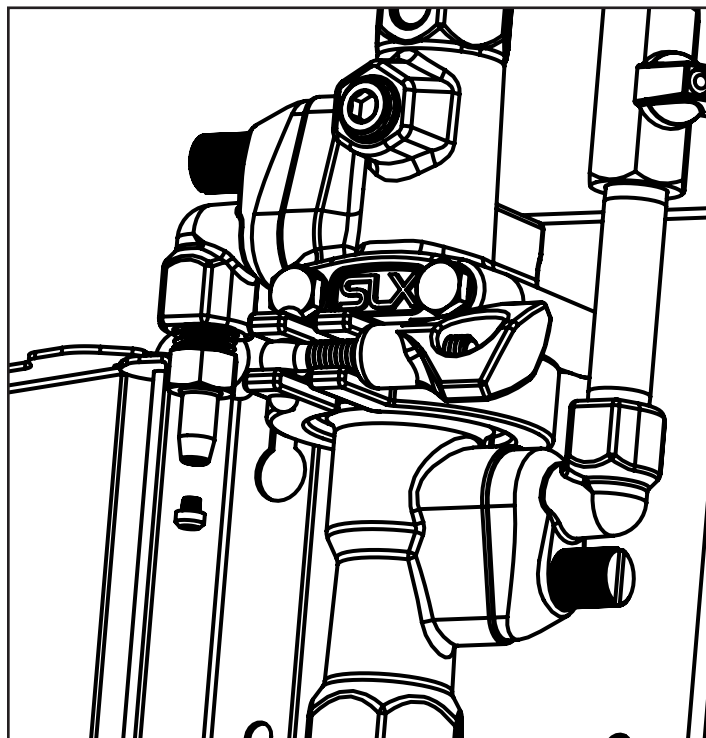


Fig. 5.1: Metering tip and hose barb

Metering Tip Dilution Ratios

Color	Oz/Min	V28	V90
Copper	0.56	640:1	2057:1
Pumpkin	0.73	491:1	1578:1
Burgundy	0.90	398:1	1280:1
Lime	1.28	280:1	900:1
Orange	1.70	211:1	678:1
Turquoise	2.15	167:1	536:1
Pink	2.93	122:1	393:1
Corn Yellow	3.84	93:1	300:1
Dark Green	4.88	73:1	236:1
Orange	5.77	62:1	200:1
Gray	6.01	60:1	192:1
Light Green	7.01	51:1	164:1

Metering Tip Calculator
Mobile App:



Color	Oz/Min	V28	V90
Med. Green	8.06	44:1	143:1
Clear Pink	9.43	38:1	122:1
Yellow Green	11.50	31:1	100:1
Maroon	11.93	30:1	97:1
Pale Pink	13.87	26:1	83:1
Light Blue	15.14	24:1	76:1
Dark Purple	17.88	20:1	64:1
Navy Blue	25.36	14:1	45:1
Clear Aqua	28.60	13:1	40:1
Black	50.00	7.2:1	23:1

NOTE: Dilution ratios may vary depending. Always test chemical dilution prior to normal operation.

Operation

Initial Use

When operating the foamer for the first time some alterations may need to be made to produce the desired foam quality and ensure the unit is drawing chemistry as intended.

1. Ensure foamer is properly connected and the water and air supply valves are closed [Fig. 6.1]
 2. Take hold of the spray wand.
 3. Fully open water valve.
 - The spray wand will begin discharging water.
 - Chemical will be drawn up the suction line and introduced to the fluid path.
 4. Ensure water pressure is above 125 PSI
 5. Fully open air valve.
 - There will be a kick of pressure as the spray wand recoils from the air pressure.
 6. Foam will begin to initiate.
 - This may appear uneven at first but as the air and water pressure stabilize the quality of the foam will become more uniform.
 7. To alter foam consistency adjust the air pressure [Fig 6.2]:
 - **Dryer Foam** - Increase air pressure (turn dial clockwise).
 - **Wetter Foam** - Decrease air pressure (turn dial counter-clockwise).
 8. Check foam quality and dilution amount per facility
- NOTE:** Always keep air pressure BELOW water pressure!
- standards.
9. Metering tip size may need to be changed if foam quality or dilution ratio is still not adequate.

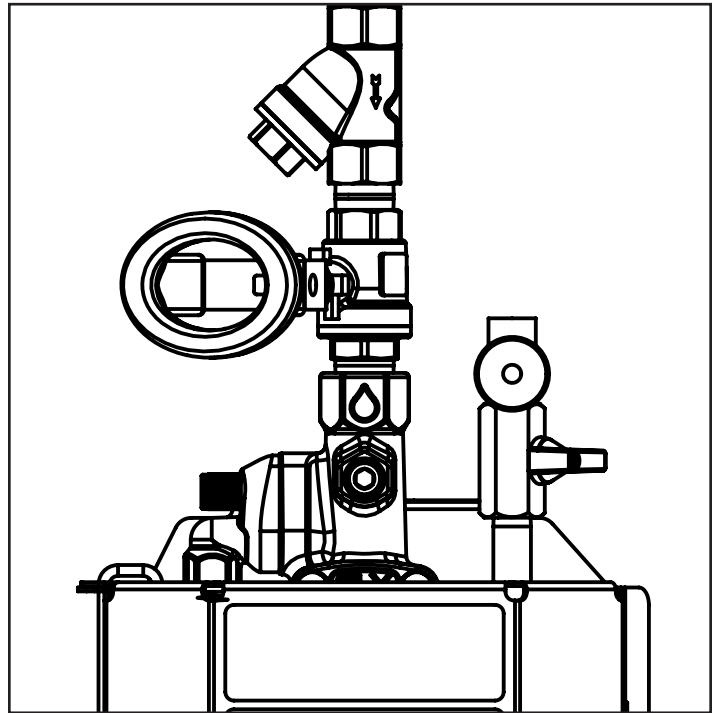


Fig. 6.1: Water and air supply ball valves closed.

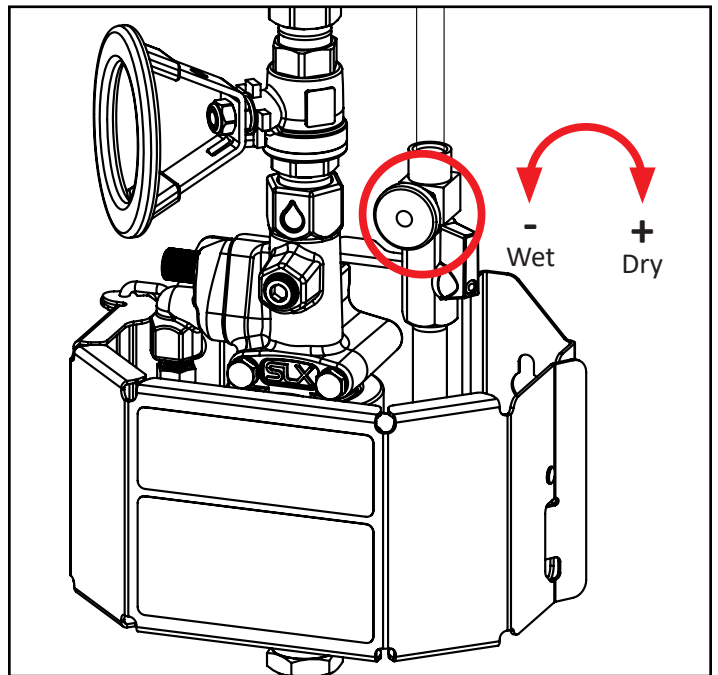


Fig. 6.2: Air pressure adjustment for foam quality.

Operation (cont.)

Normal Use

1. Ensure foamer is properly connected and the water and air supply valves are closed [Fig. 7.1]
2. Take hold of the spray wand.
3. Fully open water valve.
 - The spray wand will slowly begin discharging water.
4. Fully open air valve.
 - There will be a kick of pressure as the spray wand recoils from the air pressure.
5. Foam will begin to initiate.
 - This may appear uneven at first but as the air and water pressure stabilize the quality of the foam will become more uniform.
6. Apply foam from bottom to top, ensuring even coating.
7. Rinse before foam dries.
8. When foaming is complete, turn off supply lines.
9. Rinse hose.
10. Store hose depressurized and coiled properly coiled to prevent kinks or damage.

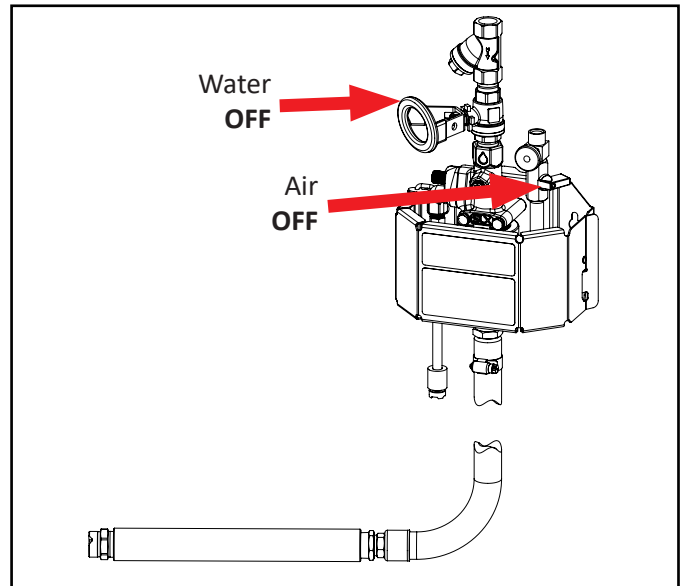


Fig. 7.1: Ball valve positions for start up

General Use

Removing Venturi Insert

1. Ensure supply lines are off and system is depressurized.

WARNING

Depressurize system prior to servicing! Always wear appropriate personal protective equipment (PPE) when handling chemical per SDS recommendations.

2. Open the enclosure door.
3. Loosen the tri-clamp fitting to disconnect the upper venturi body and lower foamer body.

NOTE: Supply lines and discharge hose can remain connected during this process. Ensure there is adequate hose/tubing length for maneuverability.

4. Pull the lower foamer body down, away from the upper venturi section.

WARNING

An o-ring is positioned between the upper and lower bodies. Ensure it is not lost during servicing.

5. With the bottom half removed the venturi insert can be accessed; pull straight down to remove.
 - Force may be required due to o-rings and/or chemical build-up.
 - A screwdriver can be used to pry the insert out if necessary. [Fig. 8.2]
6. The insert can be cleaned using warm water or descaling acid compatible with PVC.
7. Replace insert with clean or new version by sliding it back into the upper venturi body, o-ring section first. [Fig 9.1]
8. Reconnect the lower foamer body to the upper venturi

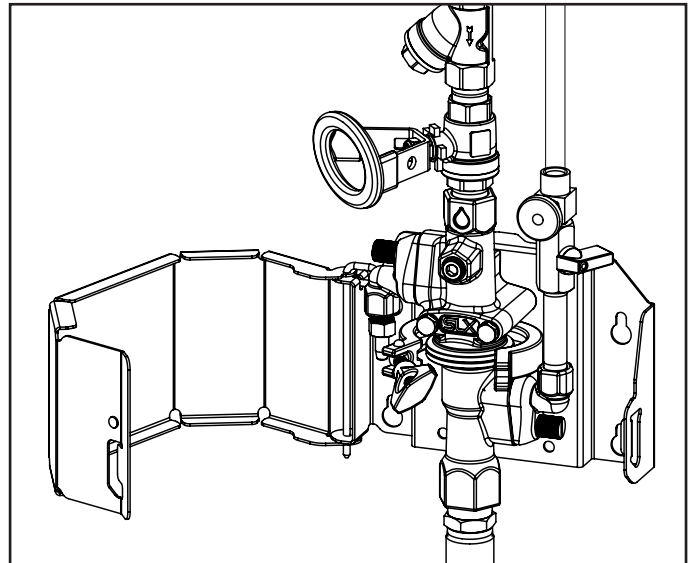


Fig. 8.1: Tri-clamp open

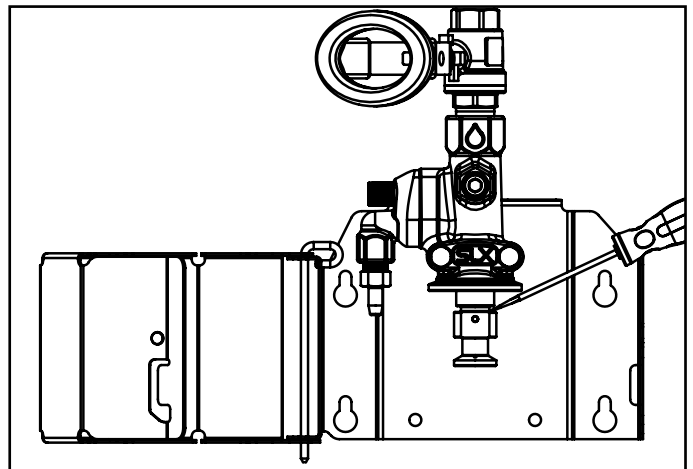


Fig. 8.2: Venturi insert removal using screwdriver

General Use (cont.)

section.

Removing Venturi Insert (cont.)

9. Place the tri-clamp around the lip where the two



WARNING

Ensure o-ring is positioned between the upper and lower bodies and is seated properly. Failure to do so may result in leaks or improper performance.

halves meet, tighten in place until secure.

10. Ensure all connection points are secure.
11. Close enclosure door and lock if necessary.
12. Follow initial setup procedures to test insert and foam quality before resuming normal operation.

Removing Check Valve

1. Ensure supply lines are off and system is depressurized.
2. Open the enclosure door
3. Loosen the thumb screw on the elbow by hand or using a flathead screwdriver. [Fig 9.2]
4. Pull the elbow away from the foamer body.
5. The check valve will be seated either inside of the elbow or the foamer body. Grab it and pull to remove. [Fig 9.3]
6. Clean or replace if damaged.
7. To reinsert, orient the check valve with the arrow pointing towards the foamer body and press into place.
8. Reattach the elbow and tighten the thumb screw until secure.

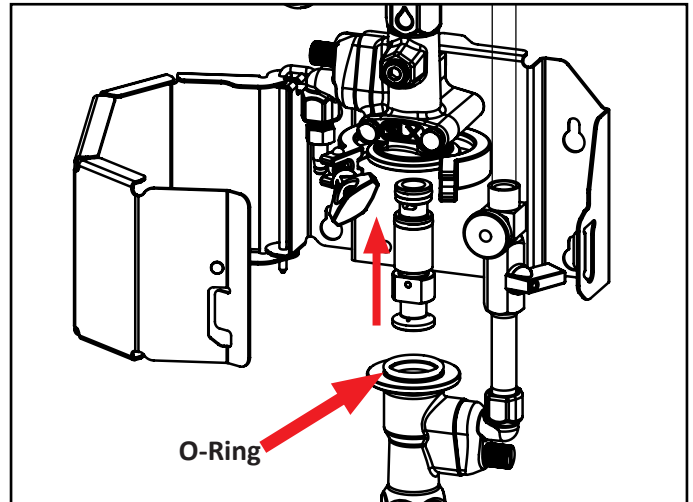


Fig. 9.1: Replacing venturi insert and foamer body

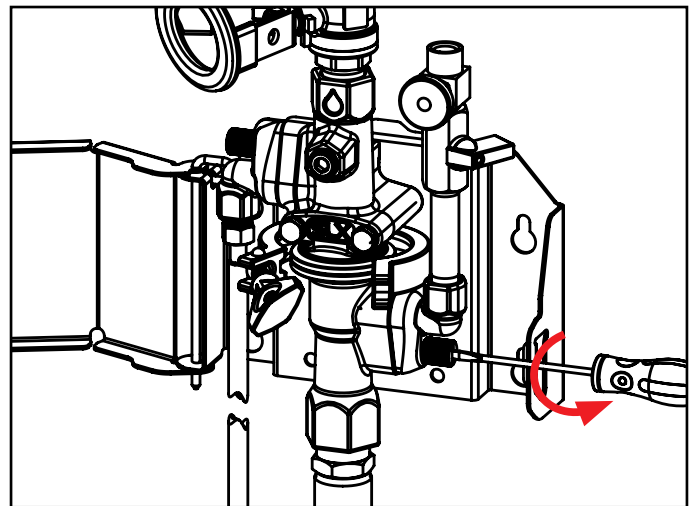


Fig. 9.2: Loosening thumb screw on elbow (air inlet)

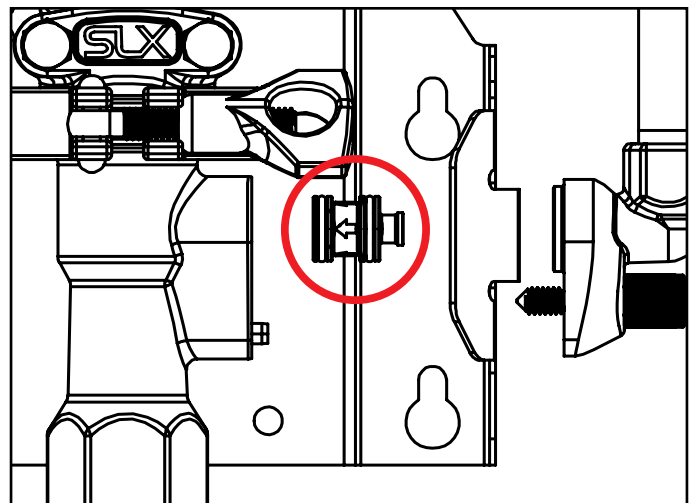


Fig. 9.3: SLX Check Valve (correct orientation)

Maintenance

The following maintenance procedures are recommended for normal use. Units which see a high amount of use should be inspected more frequently.



WARNING

Depressurize system prior to servicing! Always wear appropriate personal protective equipment (PPE) when handling chemical per SDS recommendations.

Daily:

- Check condition of hose (damage or leaks)
 - Replace as necessary.
- Ensure air and water lines are not receiving backflow of chemistry.
 - Ensure check valves are operating properly, replace as necessary.
- Verify ball valves are operating properly.
 - Replace as necessary.

Weekly:

- Ensure metering tip is free of clogs
 - Remove from chemical inlet and clean with water.
- Ensure tri-clamp is secure and bodies are sealed
 - Verify o-ring is seated properly and is not damaged. Replace as necessary.
 - Check that tri-clamp is seated properly and tighten until secure.

Monthly

- Verify check valves are operating properly
 - Remove and ensure spring is functioning properly. Replace as necessary.
- Check venturi insert for clogs and debris.
 - Remove and inspect - if clogged or scale has built up clean with water or de-scaling acid compatible with PVC.
- Check o-rings on inserts and check valves.
 - Remove and replace as necessary.
 - O-rings can be purchased individually or pre-installed as complete check valve or insert assemblies.

Annually

- Replace discharge hose (and wand if necessary)
- Replace insert, check valves, regulators, and gauges



More Information

Please contact Clean Logix at:

(616)-438-9200 or **sales@clean-logix.com**

Troubleshooting

Foam surges, bucks, and/or recoils

	Cause	Solution
Start-up	Air pressure too high	Lower the air pressure using the included regulator slowly until output stabilizes.
	Water pressure or water volume too low/inlet piping too small causing poor chemical pick up	Increase water pressure or water volume
	Inlet or discharge ball valve is not completely open	Completely open the ball valves.
	Chemical ball valve not open (2-way only)	Open chemical ball valve
	Not enough chemistry is being diluted	Install larger metering tip to use more chemistry
	Improper chemical	Ensure product is recommended for foaming and the intended application.
	Chemical supply is empty or suction line is not fully submerged	Immerse tube or replenish chemical in container.
	Discharge hose too long or wrong size or kinked	Straighten the hose or replace hose with correct size and length.
	Nozzle size too small	Replace nozzle with correct size.
	Oil or lubricant is present in airline	Use only clean, dry air.
Extended Use	Foamer insert is clogged	Open foamer body and check for debris or obstructions. Clean as necessary with water or air.
	Chemical strainer or metering tip partially blocked	Clean or replace chemical strainer and/or metering tip.
	Chemical tube stretched out or pin hole/cut in chemical tube sucking air.	Cut off end of tube or replace tube.
	Vacuum leak in chemical pick-up connections	Tighten the connection.
	Improper air pressure	Check regulator settings. Clean or replace as necessary.
	Chemical check valve stuck or failed	Clean or replace.
	Hard water scale or chemical build-up may have formed in the foamer body causing poor or no chemical pick-up	Open foamer body and check for build-up. Remove and clean with water or descaling acid (insert is PVC). Replace as necessary.

For Technical Support:





Troubleshooting

Foamer will not draw chemical

	Cause	Solution
Start-up	Air pressure too high	Lower the air pressure using the included regulator slowly until output stabilizes.
	Inlet or discharge ball valve is not completely open	Completely open the ball valves.
	Chemical ball valve not open (2-way only)	Open chemical ball valve
	Not enough chemistry is being diluted	Install larger metering tip to use more chemistry
	Chemical supply is empty or suction line is not fully submerged	Immerse tube or replenish.
	Discharge hose too long or wrong size or kinked	Straighten the hose or replace hose with correct size and length (see system specifications based on insert size)
	Nozzle size too small	Replace nozzle with correct size (see system specifications based on insert size)
Extended Use	Foamer insert is clogged	Open foamer body and check for debris or obstructions. Clean as necessary with water or air.
	Chemical strainer or metering tip partially blocked	Clean or replace chemical strainer and/or metering tip.
	Chemical tube stretched out or pin hole/cut in chemical tube sucking air.	Cut off end of tube or replace tube.
	Vacuum leak in chemical pick-up connections	Tighten the connection.
	Improper air pressure	Check regulator settings. Clean or replace as necessary.
	Chemical check valve stuck or failed	Clean or replace.
	Hard water scale or chemical build-up may have formed in the foamer body causing poor or no chemical pick-up	Open foamer body and check for build-up. Remove and clean with water or descaling acid (insert is PVC). Replace as necessary.

For Technical Support:





Troubleshooting

Foam is too wet

	Cause	Solution
Start-up	Water pressure or water volume too low/inlet piping too small causing poor chemical pick up	Increase water pressure or water volume
	Inlet or discharge ball valve is not completely open	Completely open the ball valves.
	Chemical ball valve not open (2-way only)	Open chemical ball valve
	Not enough chemistry is being diluted	Install larger metering tip to use more chemistry
	Improper chemical	Ensure product is recommended for foaming and the application.
	Chemical supply is empty or suction line is not fully submerged	Immerse tube or replenish.
	Discharge hose too long or wrong size or kinked	Straighten the hose or replace hose with correct size and length.
	Nozzle size too small	Replace nozzle with correct size.
	Oil or lubricant is present in airline	Use only clean, dry air.
Extended Use	Chemical strainer or metering tip partially blocked	Clean or replace chemical strainer and/or metering tip.
	Chemical tube stretched out or pin hole/cut in chemical tube sucking air.	Cut off end of tube or replace tube.
	Vacuum leak in chemical pick-up connections	Tighten the connection.
	Improper air pressure	Check regulator settings. Clean or replace as necessary.
	Chemical check valve stuck or failed	Clean or replace.
	Hard water scale or chemical build-up may have formed in the foamer body causing poor or no chemical pick-up	Open foamer body and check for build-up. Remove and clean with water or descaling acid (insert is PVC). Replace as necessary.

For Technical Support:





Troubleshooting

Foamer does not clean properly or Foam is too dry

Cause	Solution
Air pressure too high	Lower the air pressure using the included regulator slowly until output stabilizes.
Not enough chemistry is being diluted	Install larger metering tip to use more chemistry
Improper chemical	Ensure product is recommended for foaming and the application.
Hose may be damaged or kinked.	Straighten the hose, replace if damaged.
Incorrect discharge hose, wand, and/or nozzle size.	Verify size and replace if necessary with correct size and length (see system specifications based on insert size)

Foamer is using too much chemistry

Cause	Solution
No metering tip installed or metering tip too large	Install smaller metering tip.

For Technical Support:





Troubleshooting

Water and/or chemistry is backing up into air supply line

Cause	Solution
Air check valve failed	Clean and replace as necessary

Water is backing up into chemical container

Cause	Solution
Chemical check valve stuck or failed	Clean or replace.

Air and/or chemistry is backing up into water supply line

Cause	Solution
Inlet ball valve left on when not in use	Turn off ball valve

For Technical Support:



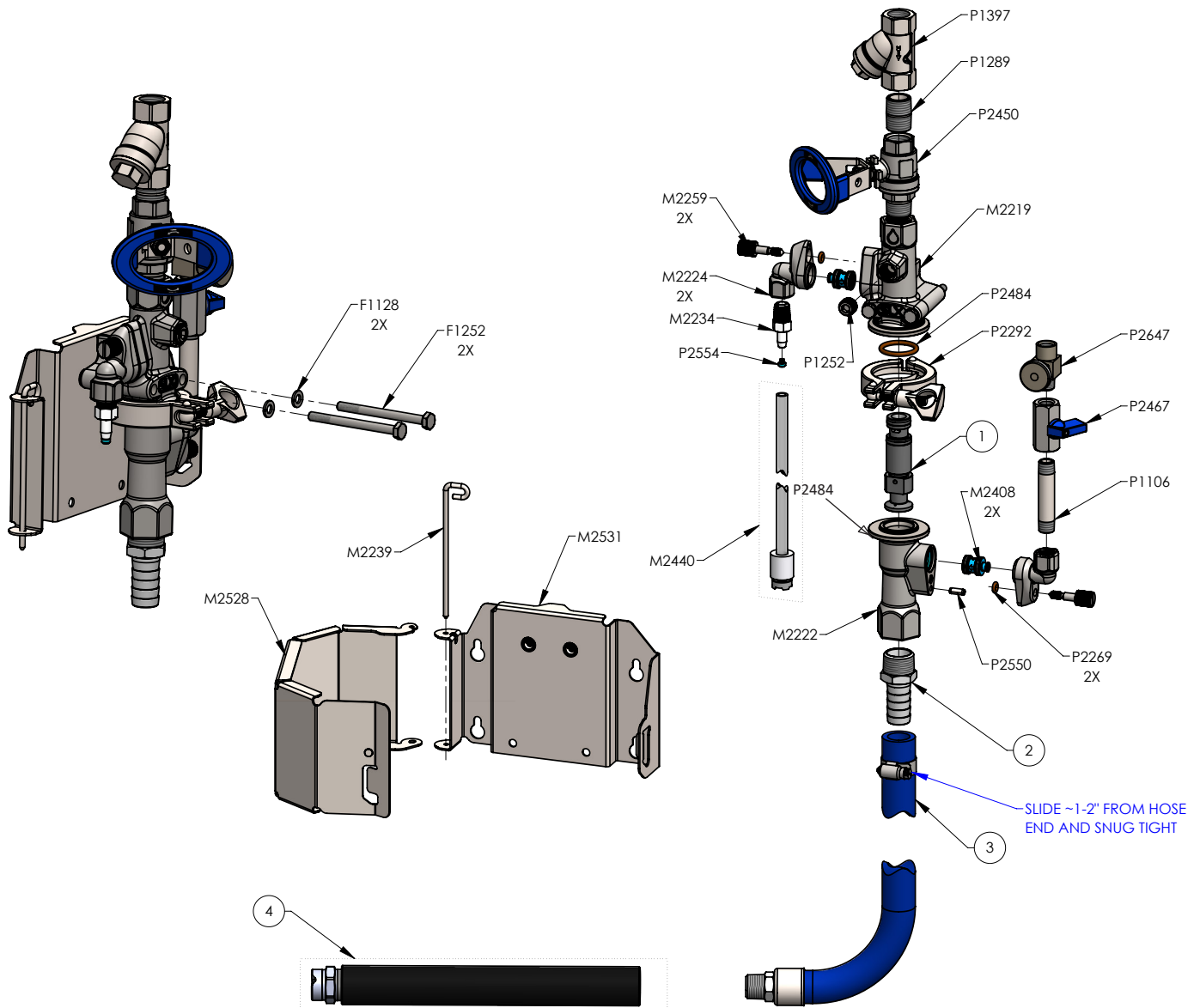
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READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



Parts Call-Out

Parts will vary depending on venturi insert size and body material. Review the parts list and following diagrams for the different system types to identify replacement parts for your specific system.



More Information

Please contact Clean Logix at:
(616)-438-9200 or sales@clean-logix.com

Purchase Replacement Parts:



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READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



	V28	V90	DESCRIPTION
1	M2616	M2618	INSERT ASSEMBLY, VENTURI, INCLUDES O-RINGS
2	M2425	M2426	PIPE ADAPTER, HOSE BARB, 316SS
3	M2697	M2277	HOSE ASSEMBLY, PVC, BLUE, MNPT ONE END, INCLUDES CLAMP
4	M2641	-	SLX WAND ASSEMBLY, POLYPROPYLENE, AXIAL FAN SPRAY NOZZLE
	-	M2656	SLX WAND ASSEMBLY, POLYPROPYLENE, JET SPRAY NOZZLE
	F1128		WASHER SPLIT LOCK 1/4 SS
	F1252		BOLT HHC 1/4-20 X 3, 316SS
	M2219		SLX UPPER BODY, TYPE-1V, SS
	M2220		SLX UPPER BODY, TYPE-2V, SS
	M2224		SLX CHECK ELBOW, 1/4 FNPT, SS
	M2234		SLX METERING BARB 1/4" NPT X 1/4" BARB
	M2239		SLX HINGE PIN V2.1
	M2259		SLX THUMB SCREW
	M2419		SLX CHECK VALVE, BALL TYPE, AFLAS SEALS, HASTELLOY SPRING, 0.5LB
	M2420		SLX LOWER BODY, TYPE-F, SS, WITH PIN AND MESH
	M2427		SLX METERING TIP FULL KIT - 22 TIPS AND DRIVER
	M2440		SLX SUCTION LINE ASSEMBLY 1/4" X 6' WITH STRAINER AND WEIGHT
	M2528		SLX CLAMSHELL DOOR SIZE 1
	M2531		SLX CLAMSHELL BACKPLATE SIZE 1
	P1106		PIPE NIPPLE 1/4 X 2-1/2 SS
	P1252		PIPE PLUG 1/4" NPT SOCKET HD SS
	P1289		PIPE NIPPLE 1/2 CLOSE SS
	P1397		STRAINER Y 1/2" NPT 316SS 100 MICRON
	P2269		O-RING 106 3/32 x 3/16 ID x 3/8 OD EPDM
	P2292		SANITARY FLANGE CLAMP, 1.0-1.5", 304SS
	P2450		VALVE, BALL, MANUAL, 1/2" FNPT X 1/2" MNPT, 316SS, PTFE (gauge not included)
	P2467		VALVE, BALL, MANUAL, 1/4" NPT FEMALE X 1/4" NPT FEMALE, 316SS
	P2484		O-RING, SLX BODY, VITON, BROWN
	P2647		VALVE, NEEDLE, 1/4" NPT FEMALE TO 1/4" NPT MALE