



USER MANUAL

MODEL:

SLX-VF

VENTURI FOAMER - SINGLE STATION

English (Original Instructions)

Updated: 02/23/22





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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.
- For pressures over 100 PSI, remove the discharge valve or lower pressure.
- **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.



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-VF

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



Overview

The SLX wall mounted water driven foamer is a low to medium volume decentralized foaming system that works with city water pressure 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 both polypropylene and stainless steel venturi foamers regardless of insert size. Model specific specifications will be identified as necessary.

Requirements

- Water Pressure: 35 - 125 PSI

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

- Max Temperature: 160°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.



More Information

Please contact Clean Logix at:

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

Specifications

- Materials of Construction:
 - Body: Polypropylene or Stainless Steel (dependent on model)
 - Enclosure: 304SS
 - Wetted Parts: PVC, Polypropylene, AFLAS, and Stainless Steel
- Weight:
 - Foamer with enclosure: 6 - 8 lbs.
 - Hose Assembly: 10 - 17.5 lbs.
 - Spray wand: 1.3 - 1.75 lbs.
- Dimensions: 8" x 12^{7/8}" x 5^{1/2}"

NOTE: Weights will vary depending on model configuration and construction materials (i.e. stainless vs. polypropylene)

Insert #	Coverage Time (sq/ft per min.)	Foam Flow Rate (GPM)	Water Flow Rate (GPM)	Hose Size (OD x L)	Spray Nozzle
V06	110	3 - 6	0.6	3/4" x 40'	80150
V14	250	7 - 14	1.4	3/4" x 50'	50250
V37H	330	18.5 - 37	3.7	1" x 50'	00400 or 50400
V42	500	21 - 42	4.2	1" x 50'	00400 or 50400

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.

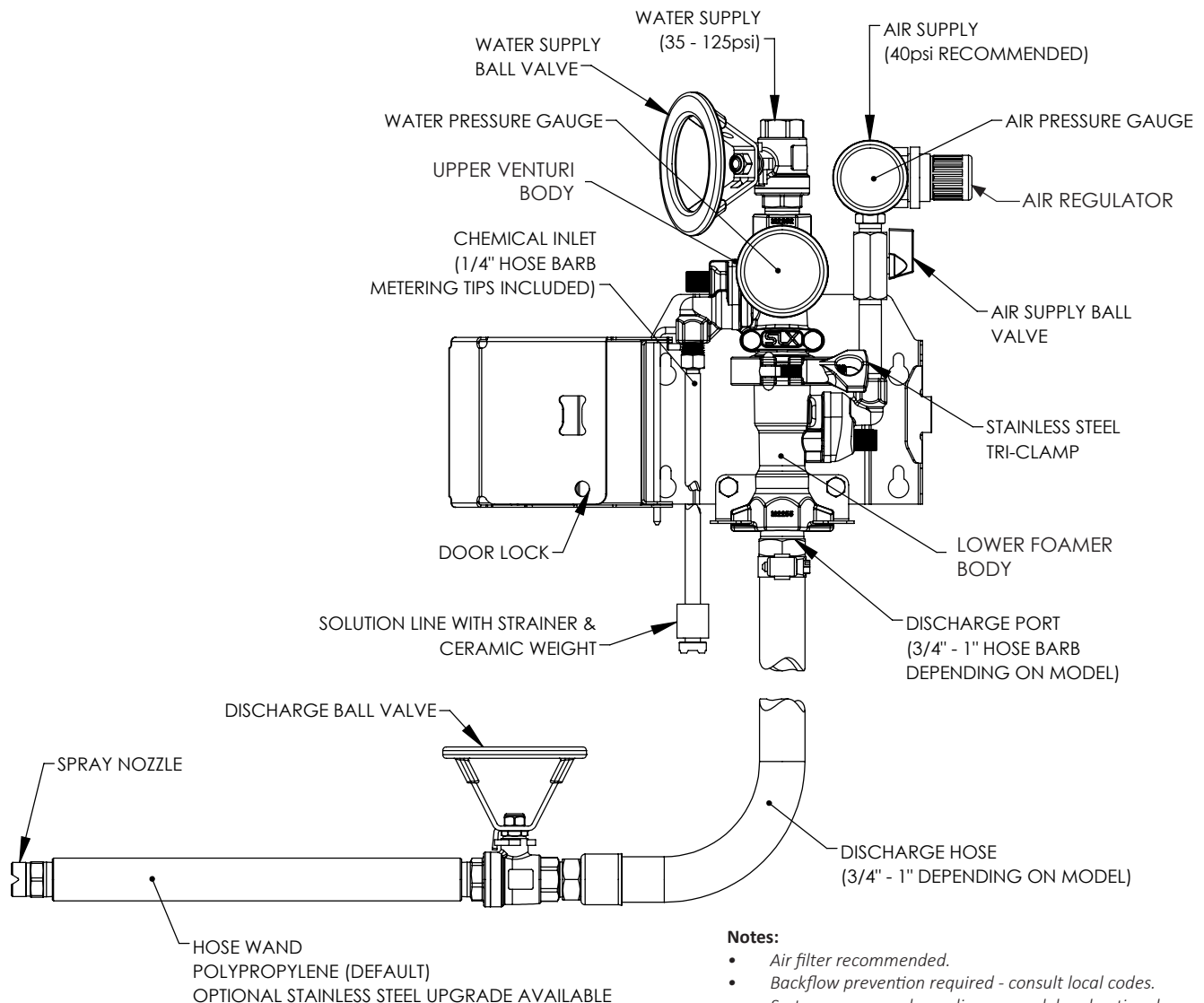
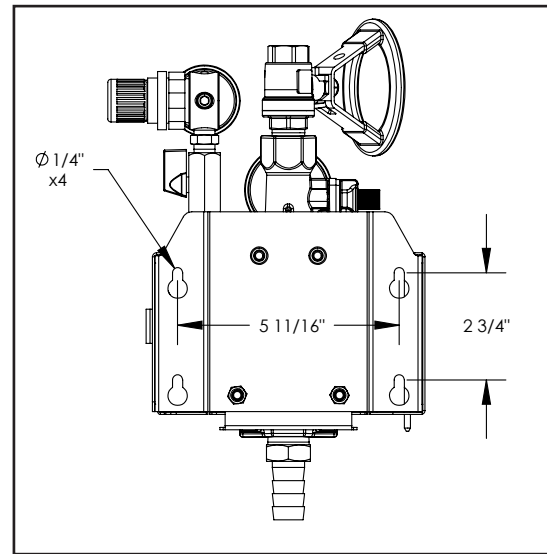
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Installation

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.



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).

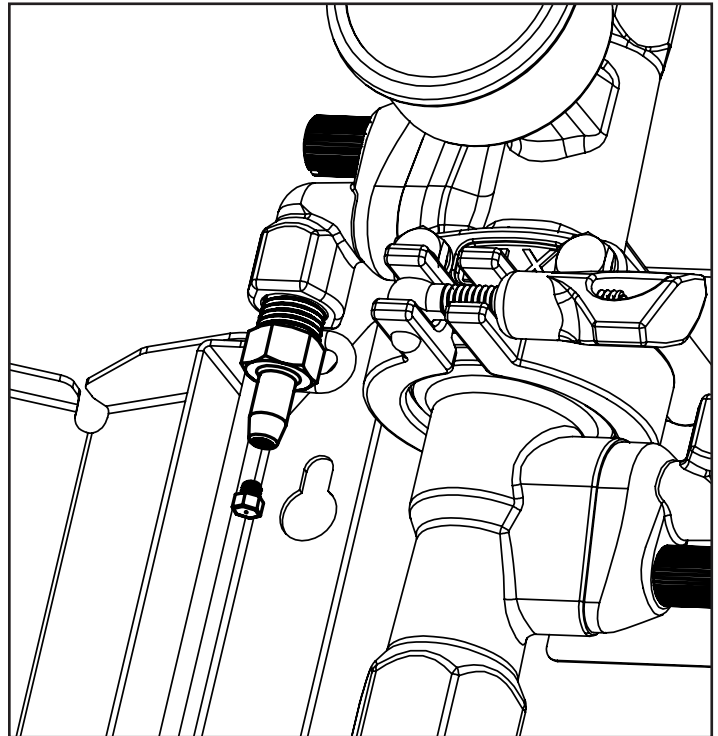


Fig. 5.1: Metering tip and hose barb

**Metering Tip Calculator
Mobile App:**



Metering Tip Dilution Ratios

Color	Oz/Gal	V06	V14	V37H	V42
Copper	0.56	137:1	320:1	823:1	994:1
Pumpkin	0.73	105:1	245:1	631:1	763:1
Burgundy	0.90	85:1	199:1	512:1	619:1
Lime	1.28	60:1	140:1	360:1	435:1
Orange	1.70	45:1	105:1	271:1	328:1
Turquoise	2.15	36:1	83:1	214:1	259:1
Pink	2.93	26:1	61:1	157:1	190:1
Corn Yellow	3.84	20:1	47:1	120:1	145:1
Dark Green	4.88	16:1	37:1	94:1	114:1
Orange	5.77	13:1	31:1	80:1	96:1
Gray	6.01	13:1	30:1	77:1	93:1
Light Green	7.01	11:1	26:1	66:1	79:1

Color	Oz/Gal	V06	V14	V37H	V42
Med. Green	8.06	10:1	22:1	57:1	69:1
Clear Pink	9.43	8:1	19:1	49:1	59:1
Yellow Green	11.50	6.7:1	16:1	40:1	48:1
Maroon	11.93	6.4:1	15:1	39:1	47:1
Pale Pink	13.87	5.5:1	13:1	33:1	40:1
Light Blue	15.14	5.1:1	12:1	30:1	37:1
Dark Purple	17.88	4.3:1	10:1	26:1	31:1
Navy Blue	25.36	3:1	7:1	18:1	22:1
Clear Aqua	28.60	2.7:1	6:1	16:1	19:1
Black	50.00	1.5:1	4:1	9:1	11:1

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. Open ball valve on spray wand [Fig. 6.2]
 4. Fully open water valve.
 - The spray wand will slowly begin discharging water.
 - Chemical will be drawn up the suction line and introduced to the fluid path.
 5. Ensure water pressure is above 35 PSI
 6. Fully open air valve.
 - There will be a kick of pressure as the spray wand recoils from the air pressure.
 7. 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.
 8. To alter foam consistency adjust the air pressure:
 - **Dryer Foam** - Increase air pressure (turn dial clockwise).
 - **Wetter Foam** - Decrease air pressure (turn dial counter-clockwise).
9. Check foam quality and dilution amount per facility standards.
10. Metering tip size may need to be changed if foam quality or dilution ratio is still not adequate.

NOTE: Always keep air pressure BELOW water pressure!

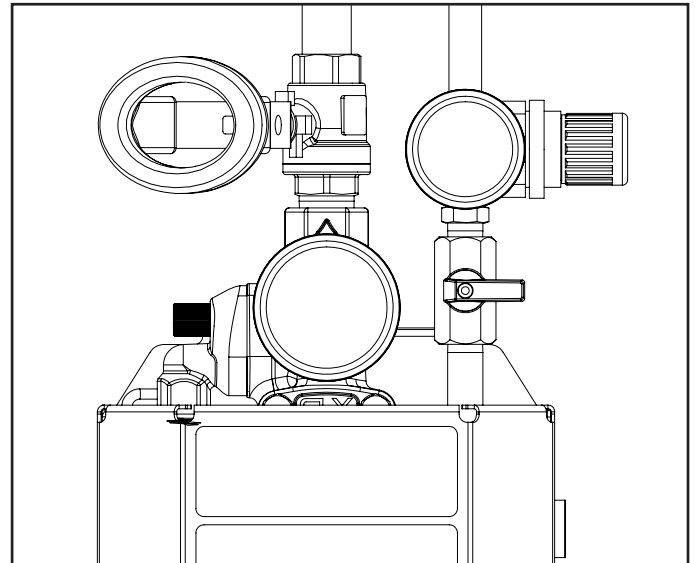


Fig. 6.1: Water and air supply ball valves closed.

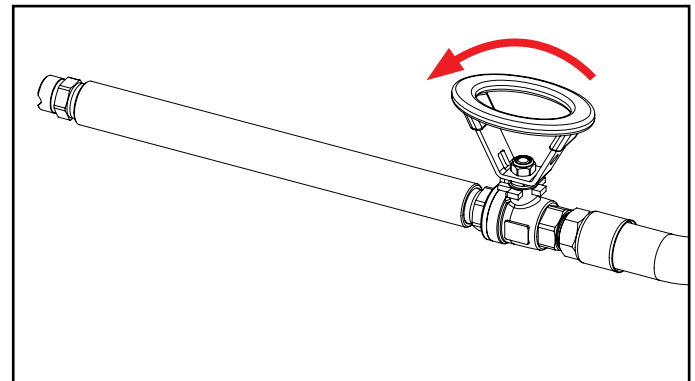


Fig. 6.2: Spray wand with open valve.

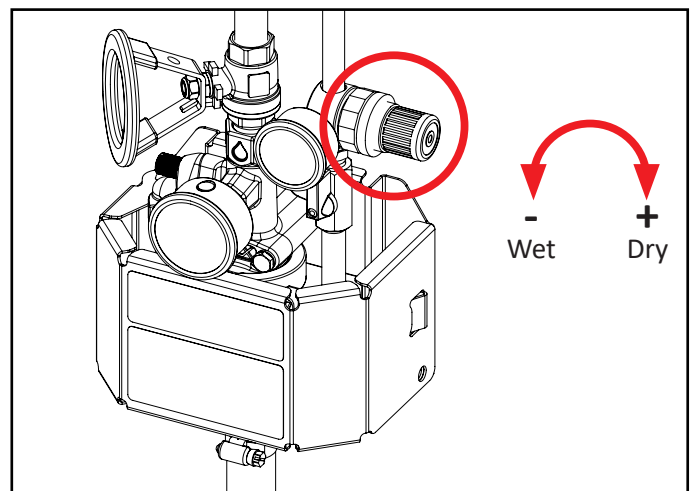


Fig. 6.3: Air pressure adjustment for foam quality.

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. Open ball valve on spray wand
4. Fully open water valve.
 - The spray wand will slowly begin discharging water.
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. Apply foam from bottom to top, ensuring even coating.
8. Turn spray wand ball valve off to temporarily stop foaming.

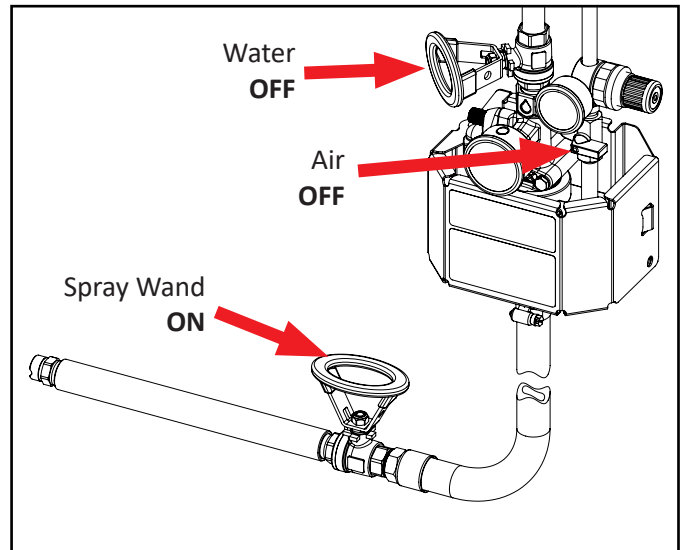


Fig. 7.1: Ball valve positions for start up



WARNING

Spray wand ball valve should only be turned off momentarily when under pressure. There will be kick-back/recoil when re-opening.

9. Rinse before foam dries.
10. When foaming is complete, turn off supply lines.
11. Open spray wand ball valve and let foam pressure exhaust completely.
12. Rinse hose.
13. Store hose depressurized, with the ball valve open and coiled properly coiled to prevent kinks or damage.

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.
 - **For Polypropylene Models:** Twist the lower foamer body and align the winglets to release it from the support bracket. [Fig 8.2]

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. 8.3]
6. The insert can be cleaned using warm water or descaling acid compatible with PVC.

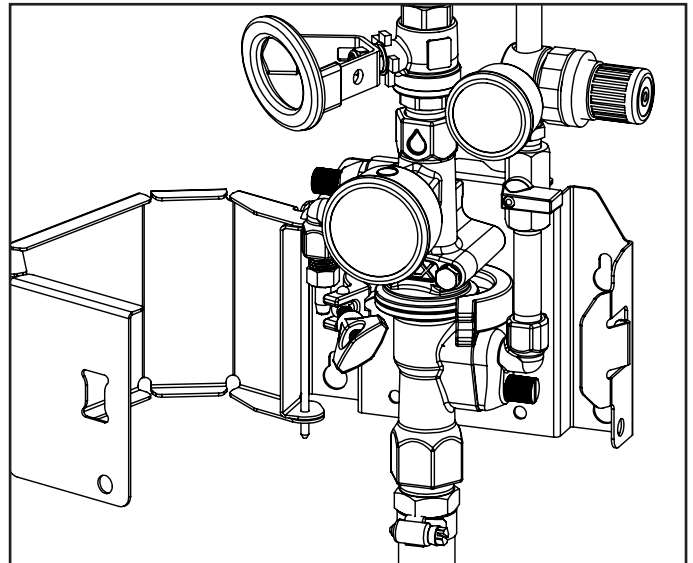


Fig. 8.1: Tri-clamp open

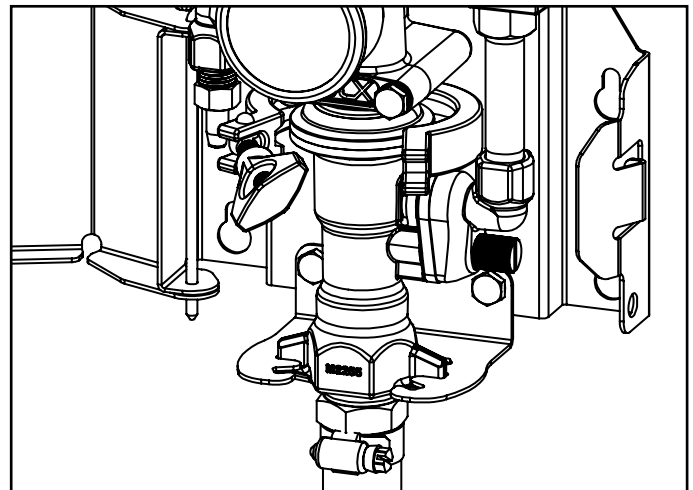


Fig. 8.2: Polypropylene lower support bracket

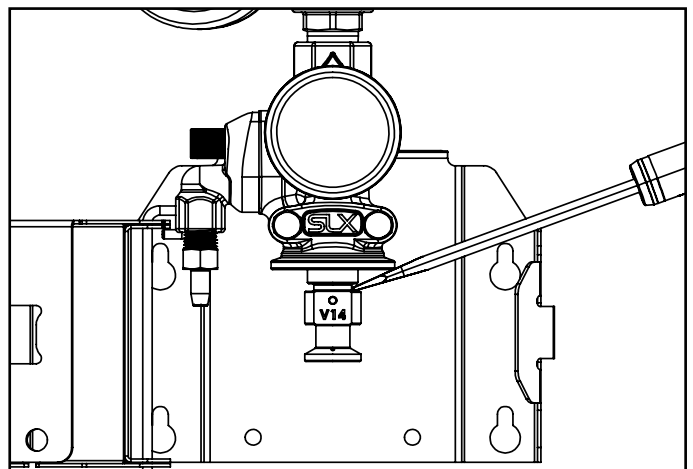


Fig. 8.3: Venturi insert removal using screwdriver

General Use (cont.)

Removing Venturi Insert (cont.)

7. Replace insert with clean or new version by sliding it back into the upper venturi body, o-ring section first.
8. Reconnect the lower foamer body to the upper venturi section.



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.

9. Place the tri-clamp around the lip where the two halves meet, tighten in place until secure.
10. Ensure gauges are facing forward and 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.

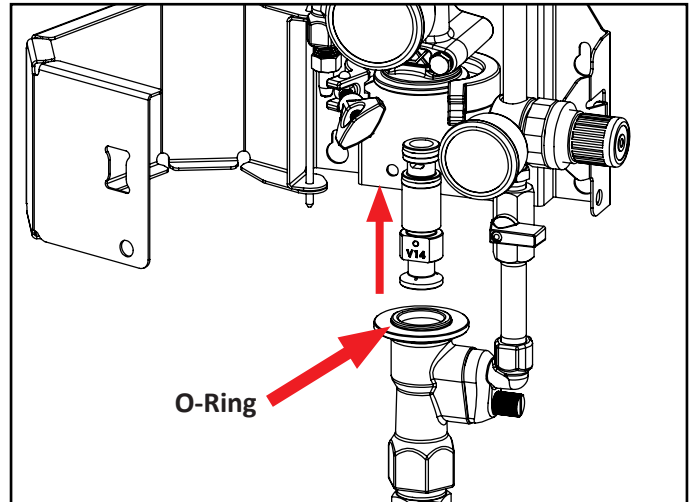


Fig. 9.1: Replacing venturi insert and foamer body

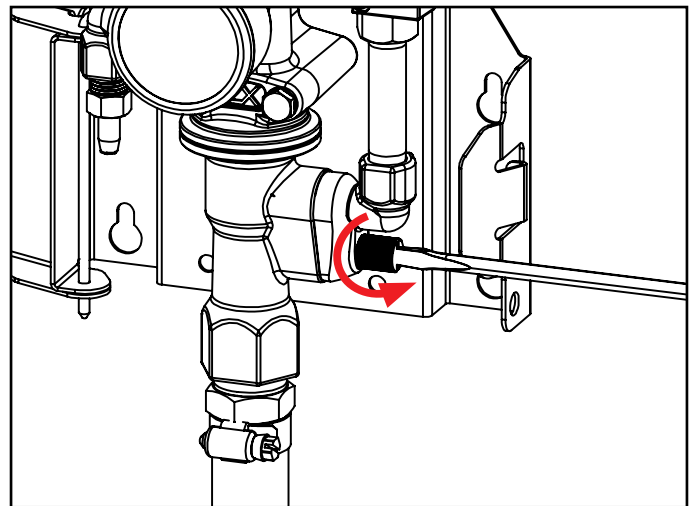


Fig. 9.2: Loosening thumb screw on elbow (air inlet)

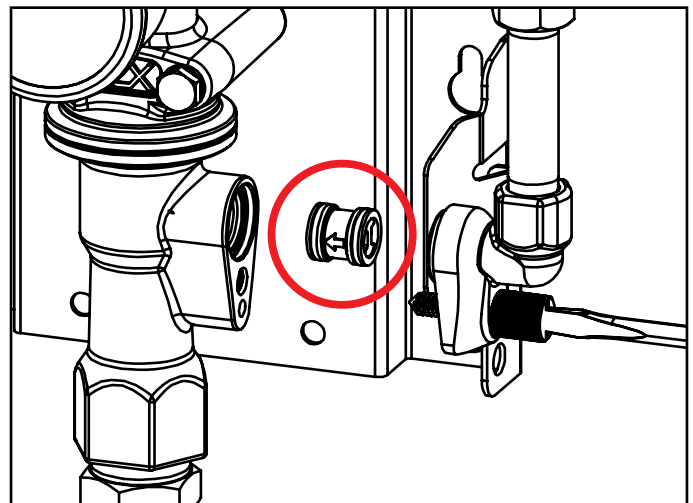


Fig. 9.3: SLX Check Valve (correct orientation)

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 till 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
Discharge ball valve left closed with inlet ball valves open	Close incoming supply lines and depressurize system when complete. Discharge ball valve should only be used for temporary shut-off during cleaning applications.

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:



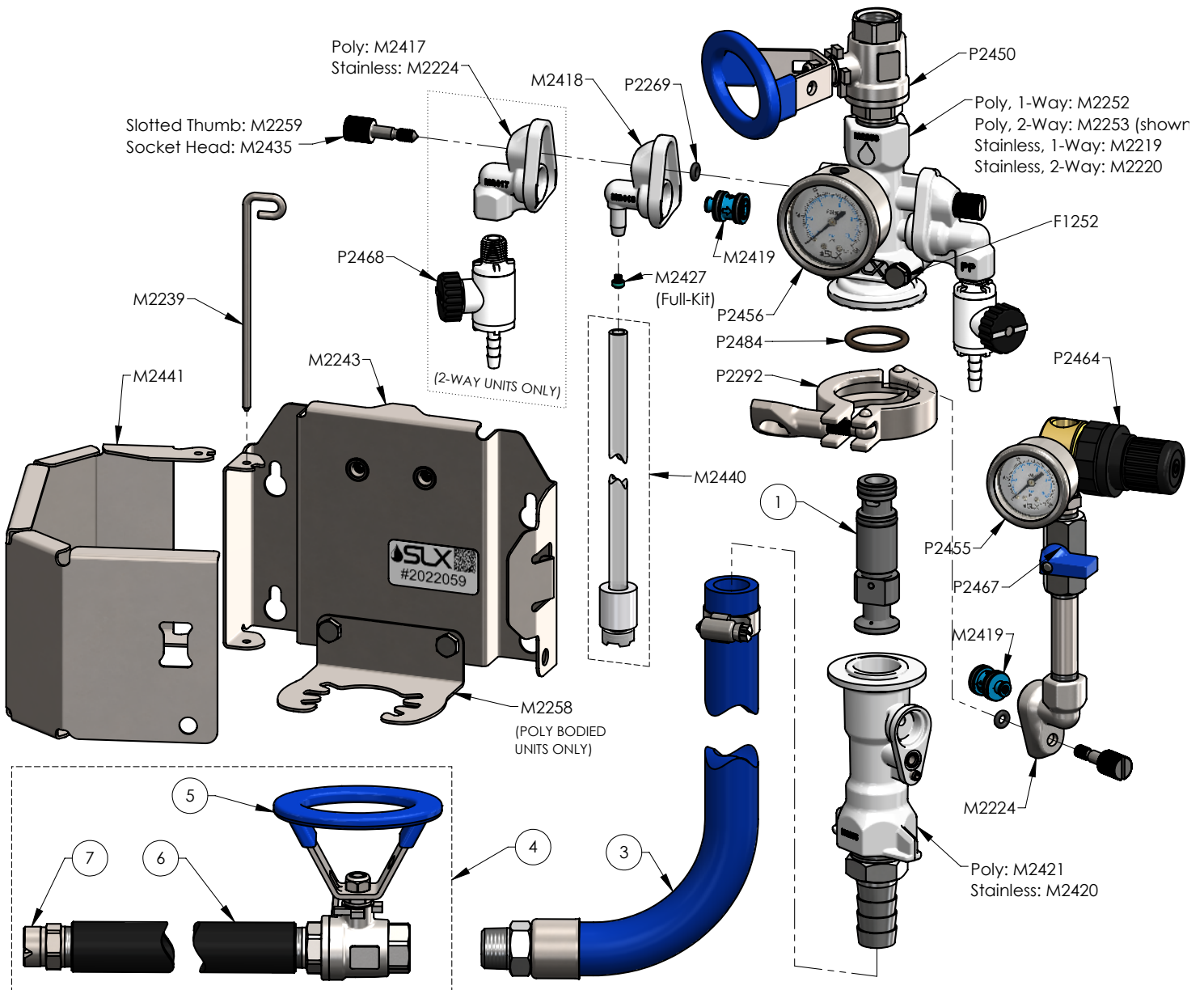
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READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



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



NO.	V06	V14	V37H	V42	DESCRIPTION
1	M2324	M2325	M2329	M2330	INSERT ASSEMBLY, VENTURI, INCLUDES O-RINGS
2	M2425	M2425	M2426	M2426	PIPE ADAPTER, HOSE BARB, 316SS
3	M2272	M2273	M2277	M2277	HOSE ASSEMBLY, PVC, BLUE, MNPT ONE END, INCLUDES CLAMP
4	M2338	M2340	M2342	M2342	SLX WAND ASSEMBLY, POLYPROPYLENE, AXIAL FAN SPRAY NOZZLE
	-	-	M2344	M2344	SLX WAND ASSEMBLY, POLYPROPYLENE, JET SPRAY NOZZLE
	M2339	M2341	M2343	M2343	SLX WAND ASSEMBLY, STAINLESS STEEL, AXIAL FAN SPRAY NOZZLE
	-	-	M2345	M2345	SLX WAND ASSEMBLY, STAINLESS STEEL, JET SPRAY NOZZLE
5	P2450	P2450	P2449	P2449	BALL VALVE, MANUAL
6	M2218	M2218	M2264	M2264	SLX WAND 10" BLACK POLYPROPYLENE
	M2263	M2263	M2265	M2265	SLX WAND 10" STAINLESS STEEL
7	P2471	P2470	P2474	P2474	NOZZLE, AXIAL FAN SPRAY, NPT, 304SS
	-	-	P2475	P2475	NOZZLE, JET SPRAY, NPT, 304SS
-	P1339	P1339	P2488	P2488	HOSE CLAMP, WORM GEAR, SS
		F1105			BOLT HHC 1/4-20 X 1/2 SS
		F1128			WASHER SPLIT LOCK 1/4 SS
		F1212			NUT NYLOCK 1/4-20 316SS
		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
		M2239			SLX HINGE PIN V2.1
		M2243			SLX CLAMSHELL BACKPLATE SIZE 1
		M2252			SLX UPPER BODY, TYPE-1V, PP
		M2253			SLX UPPER BODY, TYPE-2V, PP
		M2258			SLX LOWER SUPPORT BRACKET
		M2259			SLX THUMB SCREW
		M2417			SLX CHECK ELBOW, 1/4 FNPT, PP, V2
		M2418			SLX CHECK ELBOW, METERING BARB, PP
		M2419			SLX CHECK VALVE, BALL TYPE, AFLAS SEALS, HASTELLOY SPRING, 0.5LB
		M2420			SLX LOWER BODY, TYPE-F, SS, WITH PIN AND MESH
		M2421			SLX LOWER BODY, TYPE-F, PP, WITH PIN AND MESH
		M2427			SLX METERING TIP FULL KIT - 22 TIPS AND DRIVER
		M2435			SLX SECURITY SCREW - SOCKET
		M2440			SLX SUCTION LINE ASSEMBLY 1/4" x 6' WITH STRAINER AND WEIGHT
		M2441			SLX CLAMSHELL DOOR REPLACEMENT ASSEMBLY - SINGLE
		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)
		P2455			GAUGE, PRESSURE, 1-1/2", 0-150psi, 1/8" NPT, SS
		P2456			GAUGE, PRESSURE, 2", 0-150psi, 1/4" NPT, SS
		P2464			REGULATOR, AIR, 1/4" NPT, COMPACT
		P2467			VALVE, BALL, MANUAL, 1/4" NPT FEMALE X 1/4" NPT FEMALE, 316SS
		P2468			VALVE, BALL, MANUAL, .250 BARB, 8-32 THREAD X .250 NPT MALE, PP, VITON
		P2484			O-RING, SLX BODY, VITON, BROWN