



# USER MANUAL

MODEL:

**SLX-FILL**

**FILLING STATION - BALL VALVE & PUSH LEVER**

*English (Original Instructions)*

*Updated: 10/12/23*



**Filling Station** Clean Logix  
#SLX-FILL

Requirement	High Flow	Low Flow	Bottle Fill
Flow Rate (GAL/FL)	4.21 GPM	2.48 GPM	0.82 GPM
Mix	4.8 : 1	8.5 : 1	1.9 : 1
Disp. In.	224 F. "	605 F. "	18.3 : 1
Disp. In.	405 F. "	18.3 : 1	
Disp. In.	72" x 6		
Water Pressure	75-125 PSI		

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## General Precautions

- Altering the diameter or length of the included dispense hose or suction line may impact dilution ratios - always test dilution prior to normal operation.
- **Never** point the dispense line at another individual or electrical devices. Always direct the dispense into an appropriate container.
- **Never** leave water supply inlet ball valve on when unit is not in use (for ball valve stations).
- **Never** alter the push lever, valve, or attempt to lock (for push lever stations).
- **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.
- For installations where the water source is a faucet with an integrated vacuum breaker device conforming to ASSE 1001 or ASSE 1011, a pressure bleed device conforming to IAPMO PS-104 shall be used to protect the vacuum breaker device so that continuous pressure does not adversely affect the vacuum breaker device upstream of the pressure bleed device.



## 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.
- **When connecting to a potable water supply follow all local codes for backflow prevention.**

- **WARNING: Contamination of your potable water supply can occur without proper backflow prevention.**
- **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.



## Overview

SLX Filling Station for chemical proportioning and dispensing of mixed solutions for jugs, bottles, and other types of containers used in cleaning applications. The station features a venturi injector and ASSE 1011 vacuum breaker and backflow preventer for use with standard city water pressure (25-125 PSI) to dilute and mix chemistry.

The venturi injector is available in three sizes (high, low, and bottle fill flow rates) to achieve precise dilution ratios for your specific application needs. Hose drop stations with up to 5 isolated dispense lines are available.

The included instructions apply to both ball valve (SLX-FILL-BV) and push lever (SLX-FILL-PL) Filling Stations regardless of flow rate. Model specific requirements will be identified as necessary.

## Requirements

- Water Pressure: 25 - 125 PSI




**NOTE:** An ASSE 1011 backflow preventer is equipped on each station. Consult local codes for additional installation requirements.

- Max Temperature: 160°F
- 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 Materials: Polypropylene, Stainless Steel, Brass
  - Enclosure: 304SS
  - Wetted Parts: Polypropylene, Stainless Steel, EPDM, Brass, PVC

Insert #	Water Flow Rate (GPM)	Hose Size (OD x L)	Dilution Range
High Flow 	3.95 - 7.82	1/2" x 4.5'	1,224.7:1 - 4.8:1
Low Flow 	1.97 - 3.57	1/2" x 4.5'	605.1:1 - 3.5:1
Bottle Fill 	0.48 - 0.92	1/2" x 4.5'	151.2:1 - 1:1

*Flow rates and dilution ranges 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](mailto:sales@clean-logix.com)

# USER MANUAL: SLX-FILL

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



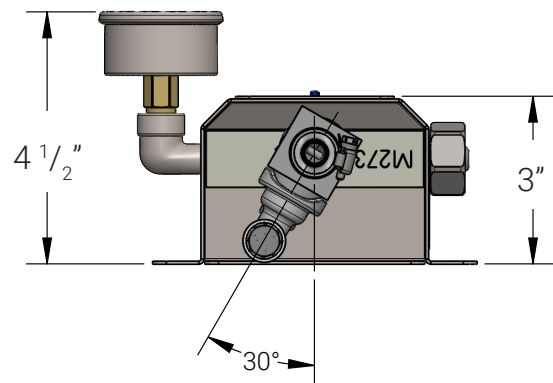
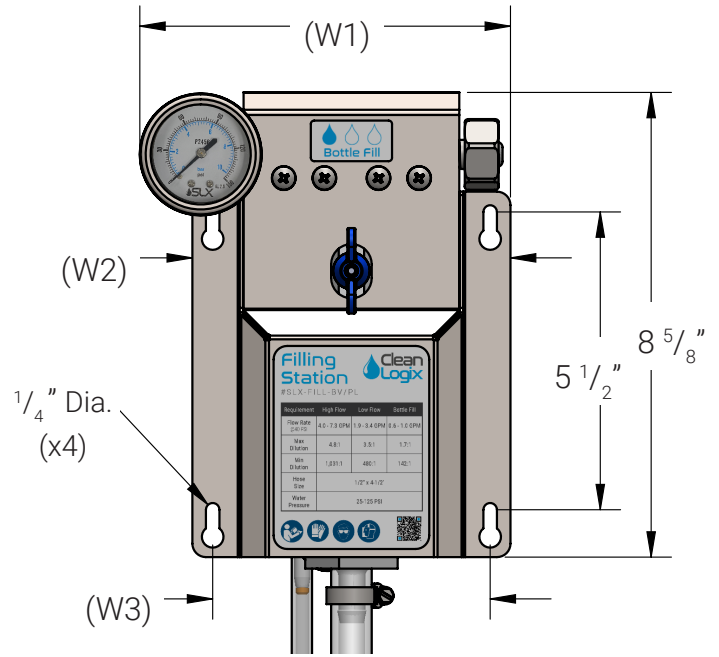
## Installation

Station size will vary depending on the number of injectors included (1-5) and activation method (ball valve or push lever). Review the diagrams and table below to identify the proper dimensions for your unit.

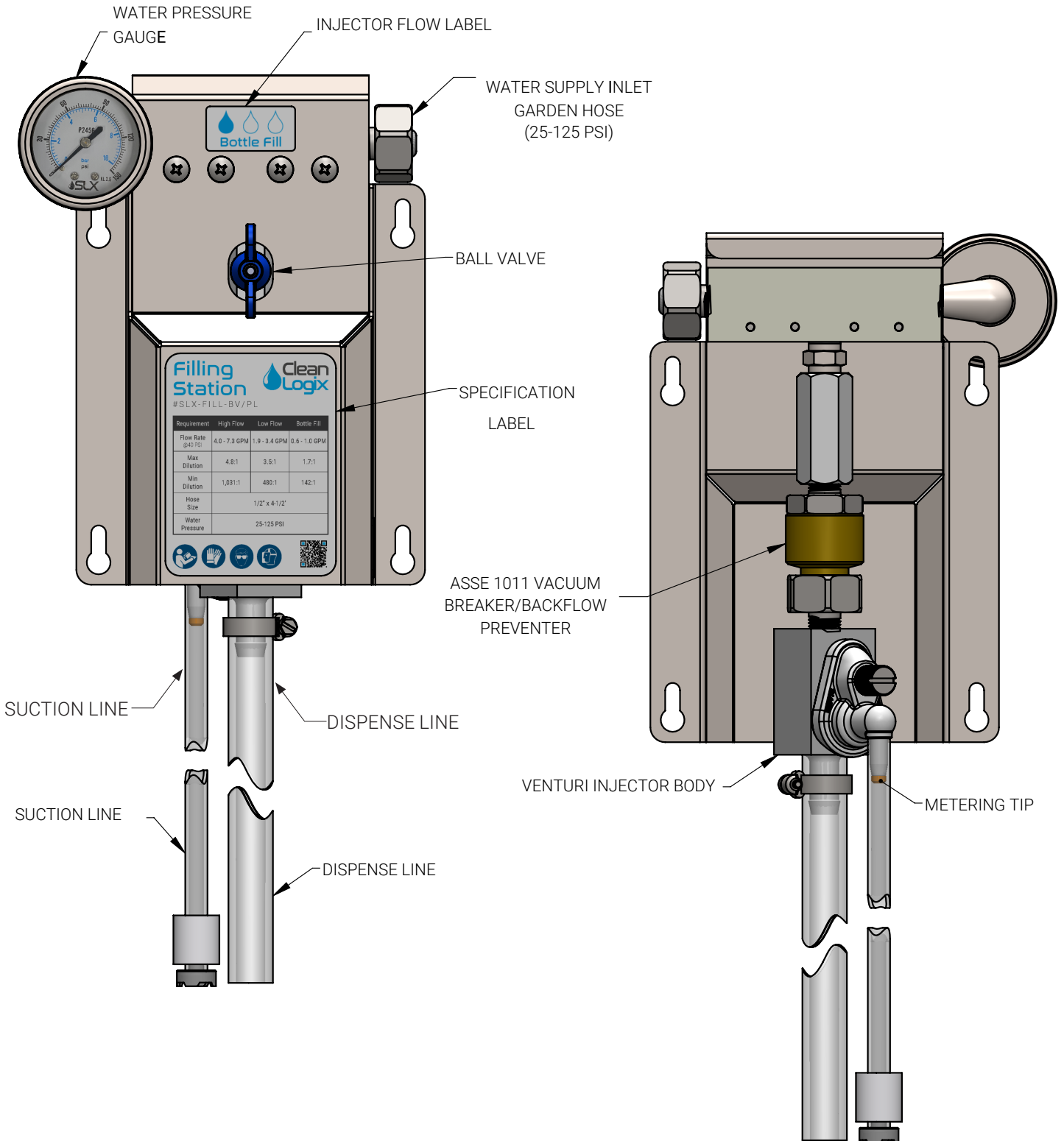
1. Attach dispense line to hose barb on venturi injector and secure with hose clamp - cut to length as necessary.
2. Mount the enclosure to the wall.
3. Flush water supply line to ensure it is flowing properly and free of debris.
4. Connect water source using garden hose to inlet.

### Dimensions:

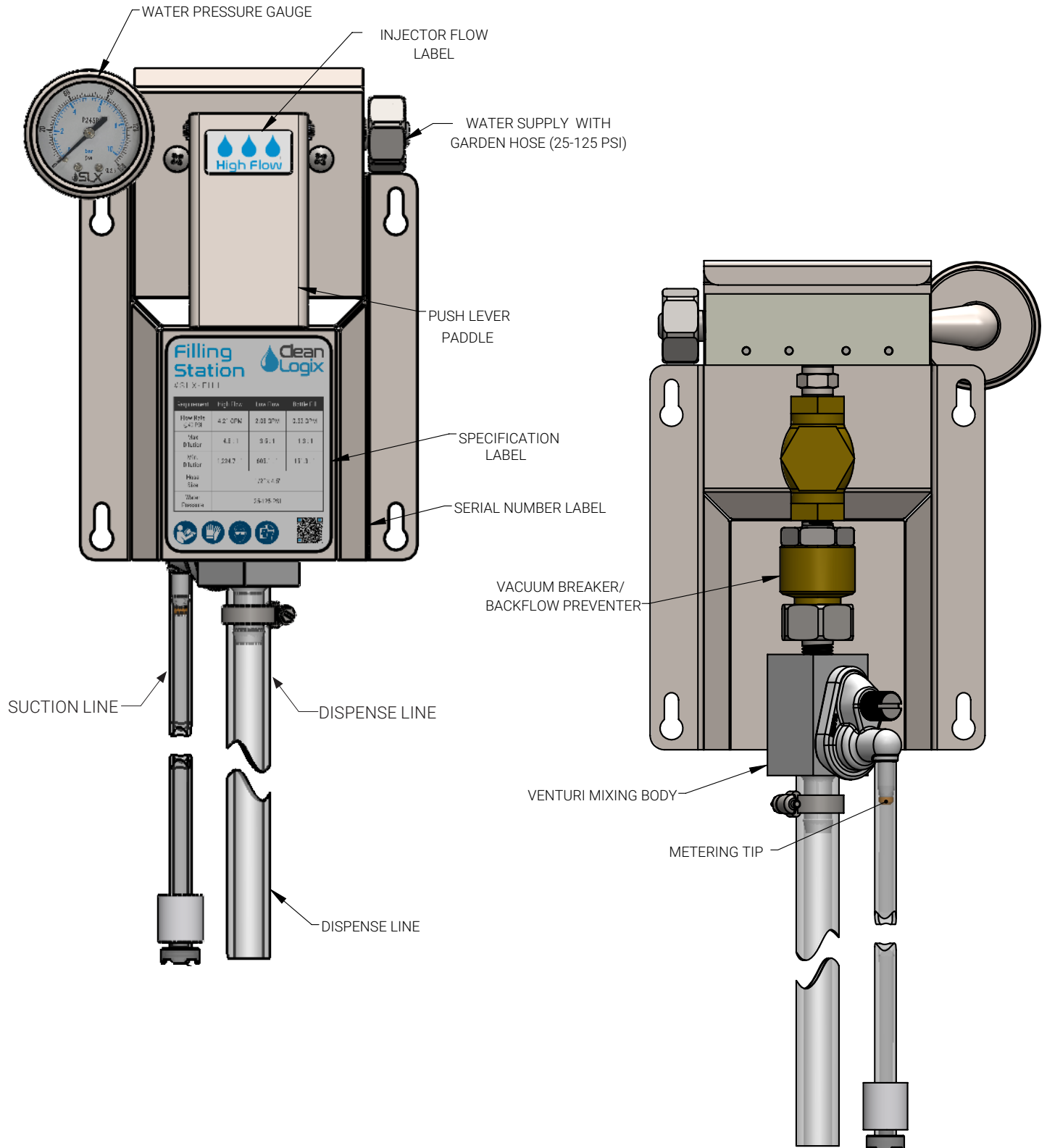
Station Size	W1	W2	W3
1	6-7/8"	5-7/8"	5-1/8"
2	9-1/4"	8-1/4"	7-1/2"
3	11-5/8"	10-5/8"	9-7/8"
4	13-7/8"	13"	12-1/4"
5	16-1/4"	15-1/4"	14-1/2"



## System Overview - Ball Valve (SLX-FILL-BV)



## System Overview - Push Lever (SLX-FILL-PL)



## 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:

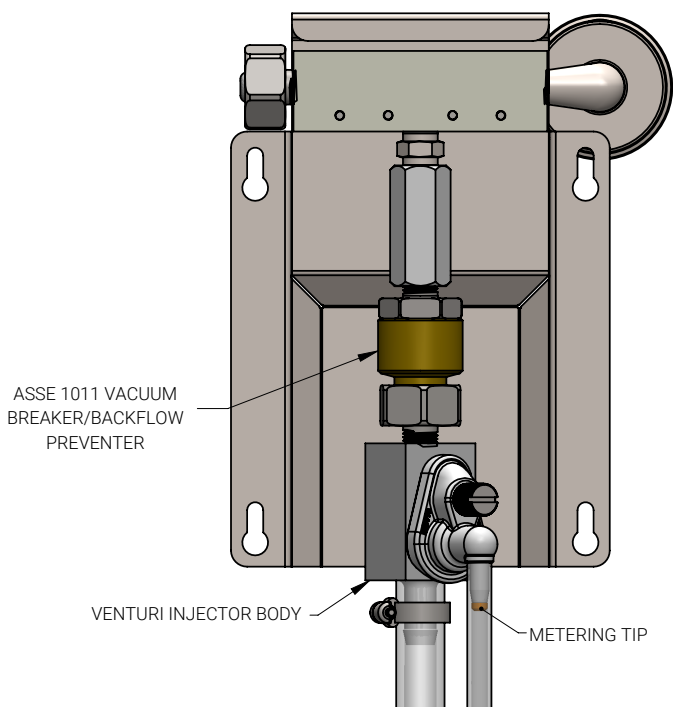
$$\text{Dilution Ratio} = \frac{(\text{GPM} \times 128)}{\text{Oz/Min}}$$

3. Thread metering tip into hose barb on chemical inlet to install.
4. Connect suction line to hose barb.
5. Submerge suction line in chemical container (suction line with ceramic weight and strainer included).

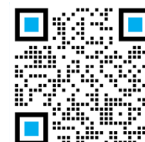
**NOTE:** Dilution ratios may vary depending. Always test chemical dilution prior to normal operation.

### Metering Tip Dilution Ratios

Color	Oz/Min	Bottle Fill	Low Flow	High Flow
Copper	0.44	151.27 : 1	605.09 : 1	1224.73 : 1
Pumpkin	0.54	123.26 : 1	493.04 : 1	997.93 : 1
Burgundy	0.67	99.34 : 1	397.37 : 1	804.3 : 1
Lime	0.85	78.31 : 1	313.22 : 1	633.98 : 1
Orange	1.7	39.15 : 1	156.61 : 1	316.99 : 1
Turquoise	2.15	30.96 : 1	123.83 : 1	250.64 : 1
Pink	2.93	22.72 : 1	90.87 : 1	183.92 : 1
Corn Yellow	3.84	17.33 : 1	69.33 : 1	140.33 : 1
Dark Green	4.88	13.64 : 1	54.56 : 1	110.43 : 1
Orange	5.77	11.54 : 1	46.14 : 1	93.39 : 1
Gray	6.01	11.07 : 1	44.3 : 1	86.66 : 1
Light Green	7.01	9.5 : 1	37.98 : 1	76.87 : 1
Med. Green	8.06	8.26 : 1	33.03 : 1	66.86 : 1
Clear Pink	9.43	7.06 : 1	28.23 : 1	57.15 : 1
Yellow Green	11.5	5.79 : 1	23.15 : 1	46.86 : 1
Maroon	11.93	5.58 : 1	22.32 : 1	45.17 : 1
Pale Pink	13.87	4.8 : 1	19.2 : 1	38.85 : 1
Light Blue	15.14	4.4 : 1	17.59 : 1	35.59 : 1
Dark Purple	17.88	3.72 : 1	14.89 : 1	30.14 : 1
Navy Blue	25.36	2.62 : 1	10.5 : 1	21.25 : 1
Clear Aqua	28.6	2.33 : 1	9.31 : 1	18.84 : 1
Black	50	1.33 : 1	5.32 : 1	10.78 : 1
[No Tip]	-	-	1 : 1	3.5 : 1



Metering Tip Calculator  
Mobile App:



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## Operation

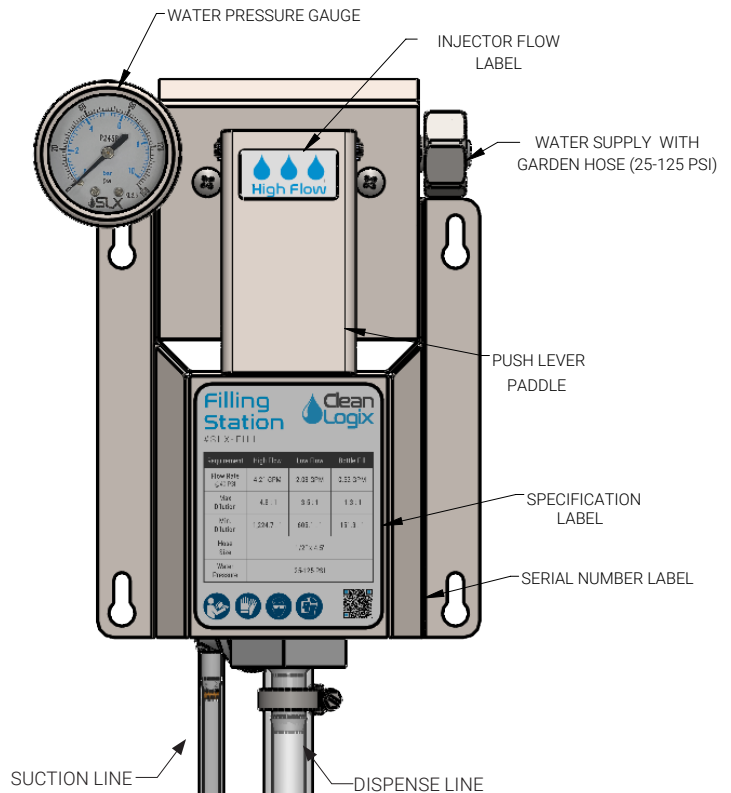
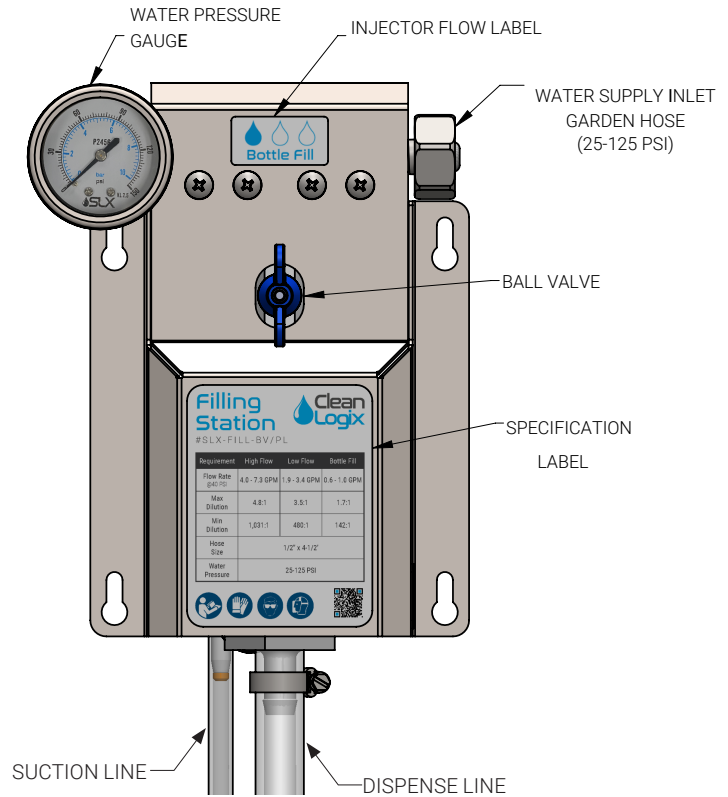
### Initial Setup

When operating the Filling station for the first time some alterations may need to be made to ensure the unit is drawing chemistry as intended.

1. Ensure unit is properly connected and the water valve is closed (ball valve is closed, push lever is not pressed down).
2. Place the dispense line inside a container (jug, bottle).
3. Open the water supply valve:
  - **Ball Valve:** Turn ball valve to engage water
  - **Push Lever:** Press paddle down to open water valve, continue to hold for controller dispensing
4. Chemical will be drawn up the suction line and introduced to the fluid path as solution is dispensed through the dispense line.
5. Turn off water supply to stop mixing.
  - **Ball Valve:** Turn handle to close ball valve
  - **Push Lever:** Release paddle to close water valve
6. Check dilution amount and adjust as necessary.
  - Metering tip size may need to be changed if dilution ratio is still not adequate.

### Normal Use

1. Ensure unit is properly connected and the water valve is closed (ball valve is closed, push lever is not pressed down).
2. Place the dispense line inside a container (jug, bottle).
3. Open the water supply valve:
  - **Ball Valve:** Turn ball valve to engage water
  - **Push Lever:** Press paddle down to open water valve, continue to hold for controller dispensing
4. Chemical will be drawn up the suction line and introduced to the fluid path as solution is dispensed through the dispense line.
5. Turn off water supply to stop mixing.
  - **Ball Valve:** Turn handle to close ball valve
  - **Push Lever:** Release paddle to close water valve





## 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 water line is not receiving backflow of chemistry.
- Ensure check valve is operating properly, replace as necessary.
- Verify ball valve or push lever for each station is operating properly.
  - Replace as necessary.

#### Weekly:

- Ensure metering tip is free of clogs
  - Remove from chemical inlet and clean with water.
- Ensure connections are sealed and free of leaks

#### Monthly

- Verify check valve is operating properly
  - Remove and ensure spring is functioning properly. Replace as necessary.
- Check venturi body for clogs and debris.
  - Remove and inspect - if clogged or scale has built up clean with water or de-scaling acid compatible with polypropylene.
- Check o-rings on connections, backflow preventer, and check valve.
  - Remove and replace as necessary.

#### Annually

- Replace discharge hose
- Replace check valves



### **More Information**

Please contact Clean Logix at:

**(616)-438-9200** or [sales@clean-logix.com](mailto:sales@clean-logix.com)



## Troubleshooting

### Unit will not draw chemical

	Cause	Solution
Start-up	Improper water pressure	Check pressure settings (system requirements 25-125 PSI).
	Water valve is not completely open (ball valve or push lever)	Completely open the ball valves by pressing down on the push lever or turning the ball valve 90°
	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 is kinked	Straighten the hose or replace
Extended Use	Strainer on water inlet is clogged.	
	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 water pressure	Check pressure settings.
	Chemical check valve stuck or failed	Clean or replace.
	Hard water scale or chemical build-up may have formed in the injector body causing poor or no chemical pick-up	Remove venturi injector and check for build-up. Clean with water or descaling acid (injector body is polypropylene). Replace as necessary.

### Unit is using too much chemistry (too strong, not diluted enough)

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

For Technical Support:





## Troubleshooting

### Unit is using too little chemistry (too diluted, not strong enough)

	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
	Water valve is not completely open (ball valve or push lever)	Completely open the ball valves by pressing down on the push lever or turning the ball valve 90°
	Metering tip is too small	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 is wrong size or is kinked	Straighten the hose or replace hose with correct size.
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.
	Chemical check valve stuck or failed	Clean or replace.
	Hard water scale or chemical build-up may have formed in the injector body causing poor or no chemical pick-up	Remove venturi injector and check for build-up. Clean with water or descaling acid (injector body is polypropylene). Replace as necessary.

### Water is backing up into chemical container

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

### Chemistry is backing up into water supply line

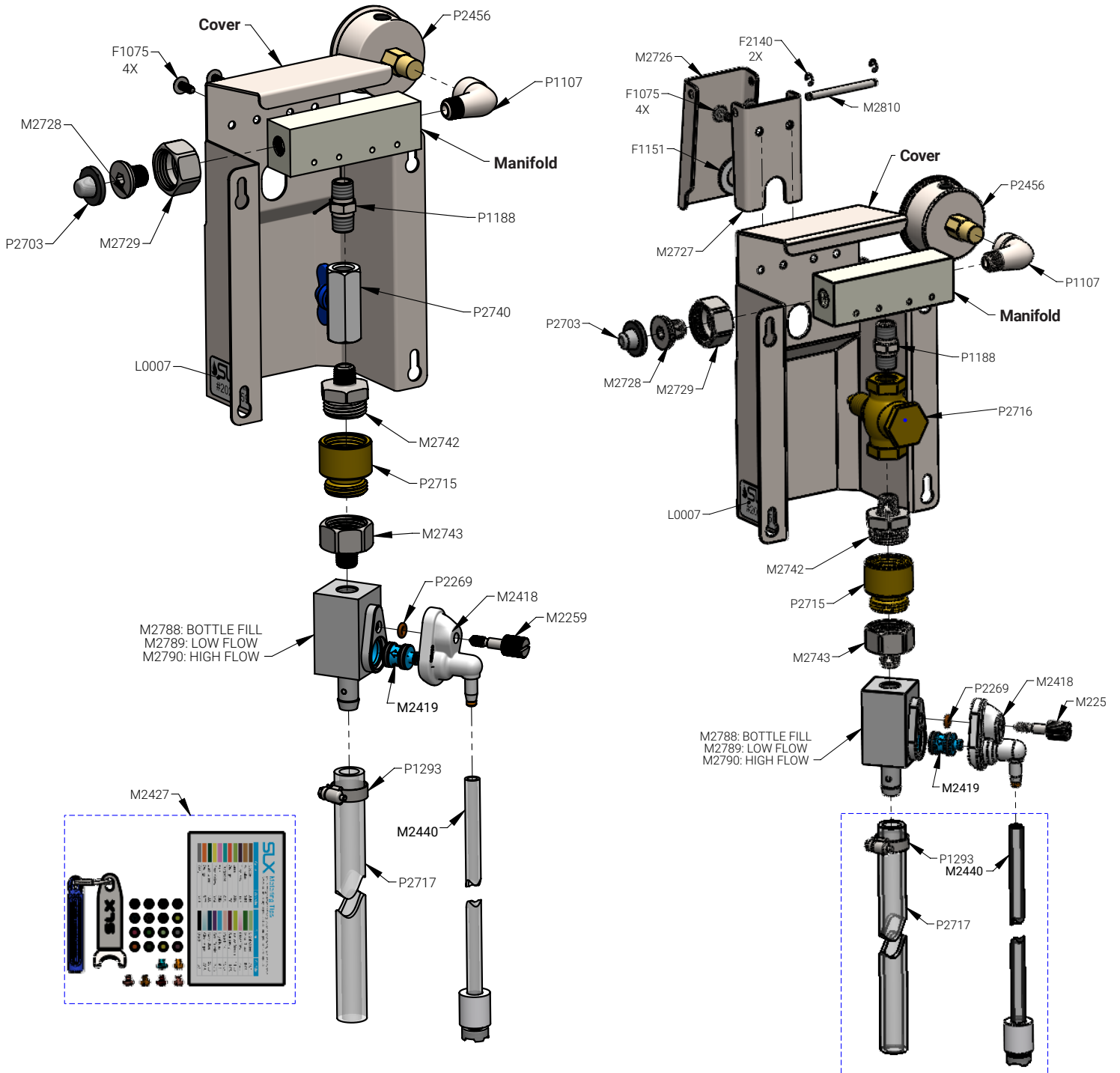
Cause	Solution
Water valve is not completely closed (ball valve or push lever)	Completely close the valve by turning the ball valve 90° so it is perpendicular to the flow path. For push lever models verify the lever is fully released and is not stuck down.

For Technical Support:



## Parts Call-Out

Parts will vary depending on model and station size. Review the parts list and following diagrams for the different system types to identify replacement parts for your specific system.





## Parts Call-Out

	Part	Description
INJECTOR	M2788	SLX FILLING STATION INJECTOR ASSEMBLY, BOTTLE FILL
	M2789	SLX FILLING STATION INJECTOR ASSEMBLY, LOW FLOW
	M2790	SLX FILLING STATION INJECTOR ASSEMBLY, HIGH FLOW
MANIFOLD	M2730	SLX FILLING STATION MANIFOLD - 1 STATION, POLYPROPYLENE
	M2731	SLX FILLING STATION MANIFOLD - 2 STATION, POLYPROPYLENE
	M2732	SLX FILLING STATION MANIFOLD - 3 STATION, POLYPROPYLENE
	M2733	SLX FILLING STATION MANIFOLD - 4 STATION, POLYPROPYLENE
	M2734	SLX FILLING STATION MANIFOLD - 5 STATION, POLYPROPYLENE
COVER	M2735	SLX FILLING STATION COVERPLATE - 1 STATION, SS
	M2736	SLX FILLING STATION COVERPLATE - 2 STATION, SS
	M2737	SLX FILLING STATION COVERPLATE - 3 STATION, SS
	M2738	SLX FILLING STATION COVERPLATE - 4 STATION, SS
	M2739	SLX FILLING STATION COVERPLATE - 5 STATION, SS
	F1075	SCREW, SELF TAP, 10-16 X 1/2", SS, TRUSS HD
	F1075	SCREW, SELF TAP, 10-16 X 1/2", SS, TRUSS HD
	F1151	WASHER, FLAT, 9/16" X 1.062", SS
	F2140	RETAINING RING, 15-7 PH SS, FOR 3/16 HINGE PIN
	M2259	SLX THUMB SCREW
	M2418	SLX CHECK ELBOW, METERING BARB, PP
	M2419	SLX CHECK VALVE, BALL TYPE, AFLAS SEALS, HASTELLOY SPRING, 0.5LB

	Part	Description
	M2427	SLX METERING TIP FULL KIT - 22 TIPS, DRIVER AND REMOVAL TOOL
	M2440	SLX SUCTION LINE ASSEMBLY 1/4" X 6' WITH STRAINER AND WEIGHT
	M2726	SLX PUSH LEVER PADDLE. SS
	M2727	SLX PUSH LEVER PADDLE MOUNT, SS
	M2728	GARDEN HOSE ADAPTER, SWIVEL, INNER, 1/4 NPT
	M2729	GARDEN HOSE ADAPTER, SWIVEL, OUTER
	M2742	GARDEN HOSE ADAPTER, 1/4 NPT-M TO GHT-M
	M2743	GARDEN HOSE ADAPTER, WITH SWIVEL, GHT-F X 1/4 NPT-M
	M2810	SLX FILLING STATION PUSH LEVER HINGE PIN, SS
	P1107	PIPE ELBOW, STREET, 1/4" NPT, 316SS, 150 PSI
	P1188	PIPE NIPPLE, HEX, 1/4" NPT X 1/4" NPT, 304SS, 150 PSI
	P1293	HOSE CLAMP WORM GEAR 316 SS 5/16" BAND, 1/2" - 29/32" CLAMP RANGE
	P2269	O-RING, ROUND, -106, 3/32" X 3/8", VITON, BROWN
	P2456	GAUGE, PRESSURE, 2", 0-150PSI, 1/4" NPT, SS CASE, BRASS CONNECTION, CENTER BACK MOUNT
	P2703	WASHER, EPDM, FOR GHT GARDEN HOSE, 1" OD X 0.625" ID - WITH SS FILTER
	P2715	VACUUM BREAKER, GHT, ASSE 1011, LEAD FREE BRASS
	P2716	VALVE, PUSH BUTTON WITH JAM NUT, BRASS, 1/4 NPT, LESS LEVER AND BRACKET
	P2717	HOSE, 1/2", PVC, CLEAR
	P2740	VALVE, BALL, MANUAL, 1/4" NPT X 1/4" NPT X 1.875", BUTTERFLY HANDLE, 316SS

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

**Purchase Replacement Parts:**

