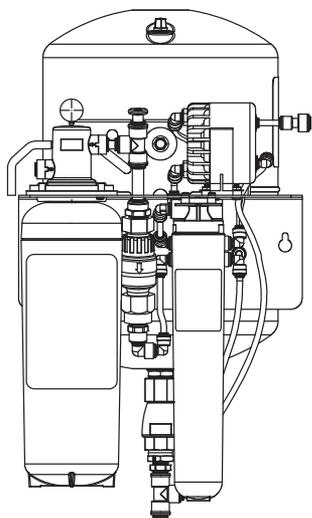


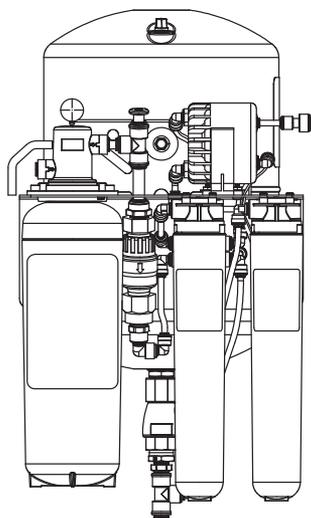
# **3M** Science. Applied to Life.™

**3M™ Water Filtration Products**

## **Installation Manual for SGLP-CL Series Reverse Osmosis Filtration Systems**



**SGLP100-CL  
SGLP100-CL-BP**



**SGLP200-CL  
SGLP200-CL-BP**

Note: Installer - please leave with owner/operator.

Register your system and sign up for reminders at:  
[www.3m.com/FSfilterreminder](http://www.3m.com/FSfilterreminder)

## Intended Use Statement:

SGLP100-CL, SGLP200-CL, SGLP100-CL-BP and SGLP200-CL-BP are intended for use in filtering potable water and have not been evaluated for other uses. The products are installed at the point of use and must be installed as specified in the installation instruction by a qualified professional.

### **⚠ WARNING**

**Read entire manual. Failure to follow all guides and rules could cause personal injury or property damage.**

- Check with your local public works department for plumbing codes. You must follow their guidelines as you install the Water Filtration system.
- Your Water Filtration system will withstand up to 125 pounds per square inch (psi) water pressure. If your water supply pressure is higher than 80 psi, install a pressure reducing valve before installing the Water Filtration system.

**To reduce the risk associated with choking:**

- DO NOT allow children under 3 years of age to have access to small parts during the installation of this product.

**To reduce the risk associated with the ingestion of contaminants:**

- DO NOT use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

**To reduce the risk associated with hazardous voltage due to an installer drilling through existing electric wiring or water pipes in the area of installation:**

- DO NOT install near electric wiring or piping which may be in path of a drilling tool when selecting the position to mount the filter bracket.

### **NOTICE**

**To reduce the risk associated with property damage due to water leakage or flooding:**

- Read and follow Use Instructions before installation and use of this system.
- Change the disposable pre-filter at the recommended interval; the disposable pre-filter MUST be replaced every 12 months or sooner.
- Change the disposable filter RO membrane at the recommended interval; the disposable filter RO membrane MUST be replaced every 24 months or sooner.
- Failure to replace the disposable pre-filter and disposable RO membrane at recommended intervals may lead to reduced filter performance and failure of the filter, causing property damage from water leakage or flooding.
- Installation and use MUST comply with all state and local plumbing codes.
- Protect from freezing, remove filter cartridge when temperatures are expected to drop below 33°F (4.4°C).
- DO NOT install systems in areas where ambient temperatures may go above 110°F (43.3°C).
- DO NOT install on hot water supply lines. The maximum operating water temperature of this filter system is 100°F (37.8°C).
- DO NOT install if water pressure exceeds 125 psi (862 kPa). If your water pressure exceeds 80 psi (552 kPa), you must install a pressure limiting valve. Contact a plumbing professional if you are uncertain how to check your water pressure.
- DO NOT install where water hammer conditions may occur. If water hammer conditions exist you must install a water hammer arrester. Contact a plumbing professional if you are uncertain how to check for this condition.
- Where a backflow prevention device is installed on a water system, a device for controlling pressure due to thermal expansion MUST be installed. Contact a plumbing professional if you are uncertain how to select/install/maintain a thermal expansion device.

- Where a booster pump is installed on a water system, you **MUST** maintain and inspect the attached pressure switch regularly in accordance with the booster pump manufacturer's instructions. Contact a plumbing professional if you are uncertain how to maintain your booster pump system.
- Where a booster pump is installed on a water system, you **MUST** install an appropriate pressure relief valve. Pressure relief valve must be maintained and inspected every 6 months. Contact a plumbing professional if you are uncertain how select/install/maintain a pressure relief valve.
- Where a booster pump is installed on a water system, you **MUST** install an appropriate pressure regulating valve and regulate water pressure to <80 psi. Contact a plumbing professional if you are uncertain how select/install/maintain a pressure regulating valve.
- **DO NOT** install in direct sunlight or outdoors.
- **DO NOT** install near water pipes which will be in path of a drilling tool when selecting the position to mount the bracket.
- Mount filter in such a position as to prevent it from being struck by other items used in the area of installation.
- Ensure that the location and fasteners will support the weight of the system when installed and full of water.
- Ensure all tubing and fittings are secure and free of leaks.

## FEEDWATER PARAMETERS

These systems are intended for use on feedwater meeting the following parameters. Be sure to confirm that the feedwater falls within the limits shown below. If you're not sure if this has been done, check with your distributor before installing the system.

### Feedwater Parameters:

Feed TDS . . . Up to 2,000 ppm (mg/L)	Pressure . . . 60-125 psi (4.12 - 8.62 KPA)
Hardness* . . . . . <10 grains (171 mg/L)	Temperature . . . . .40-100°F (4.4-38°C)
Iron (Fe) . . . . . <0.1 mg/L	
Hydrogen Sulfide . . . . .none allowable	
Feed pH . . . . .4-11	
Free chlorine . . . . . <2 mg/L	
Manganese (Mn) . . . . . <0.05 mg/L	
Turbidity . . . . . <5 NTU	

For areas with high dirt/sediment in incoming water, HF60-CL or HF90-CL pre-filter is recommended.

\* NOTE: For waters over 10 grain hard, a 3M water softener is recommended for pretreatment. Consult 3M technical services for correct sizing.

For areas with incoming pressure less than 60 psi an external Booster Pump is required.

## PRODUCT SPECIFICATIONS

Model Number	Part Number	Description	Capacity <sup>2</sup>
SGLP100-CL	5636201	Reverse Osmosis System	100 gpd (379 lpd)
CFS M	5625004	RO Membrane	100 gpd (379 lpd)
HF65-CL	5628902	Pre-Filter	15,000 gallons (56,781 liters) at 1 gpm (3.81 lpm)
SGLP200-CL	5636202	Reverse Osmosis System	200 gpd (757 lpd)
SGLP100-CL-BP	5636204	Reverse Osmosis System w/bypass	100 gpd (379 lpd)
SGLP200-CL-BP	5636203	Reverse Osmosis System w/bypass	200 gpd (757 lpd)
SGLP Bypass (sold separately)	50-94601	SGLP Bypass Kit	N/A

<sup>2</sup> RO production rates listed are at a water pressure and temperature of 60 PSI and 77°F producing water at atmosphere.

## PARTS LIST

The following parts are included with the SGLP100-CL, SGLP200-CL, SGLP100-CL-BP and SGLP200-CL-BP Reverse Osmosis Water Filtration systems. Please unpack the contents from the product box and check to verify that all of the parts listed below are included. Should any parts be missing, please contact 3M Purification Inc. at 866.990.9785.

QTY	DESCRIPTION
1	(A) RO Assembly (includes manifold and tank)
1	(B) HF65-CL Pre-filter cartridge
1	(C) Reverse Osmosis Membrane (Qty of 2 in SGLP200-CL and SGLP200-CL-BP)
1	(D) Cleaning Bypass Assy. (includes 1/2" and 3/8" tubing and extra fittings, not shown) (Models SGLP100-CL-BP & SGLP200-CL-BP only)



## MOUNTING

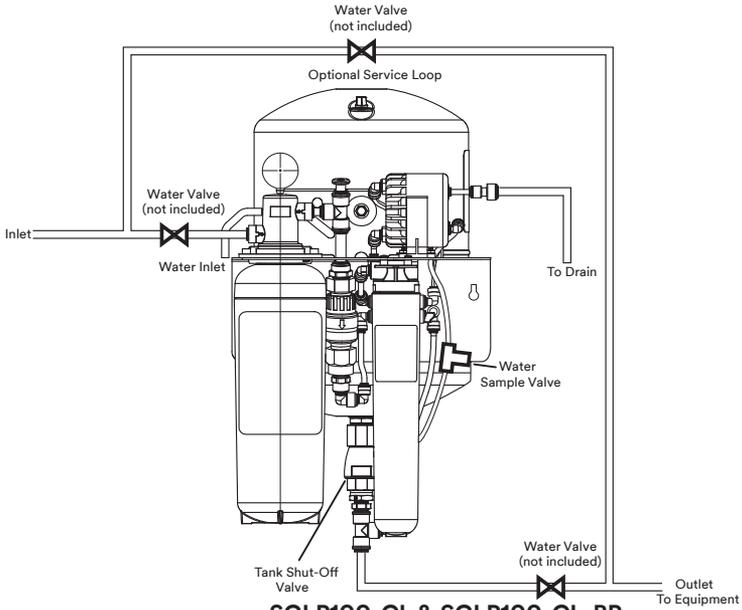
1. See page 11, Figure 5 for mounting dimensions.
2. Install mounting screws (not included) into the wall or mounting surface as noted in Figure 5. Be sure to leave a 1/8" to 1/4" space between the bottom of the screw head and the wall so that the bracket can be hung.  
**NOTE: Mounting hardware must be capable of supporting a minimum of 50 lbs (22.7 kg).**
3. Hang the Bracket/Tank Assembly from the mounting screws.
4. Once the bracket is hung, tighten the mounting screws so that the bracket is snug between the screw and the wall. **Note: Make sure that the bracket is securely mounted to a wall stud or other appropriate wall structure.**

## PLUMBING CONNECTIONS

**Note: The SGLP100-CL, SGLP200-CL, SGLP100-CL-BP and SGLP200-CL-BP Reverse Osmosis Water Filtration System requires a minimum 60 psi inlet water pressure. If inlet water pressure is less than 60 psi, a water booster pump may be required depending on the minimum delivery pressure requirements of the downstream equipment. Refer to Figure 1 for proper tubing connections.**

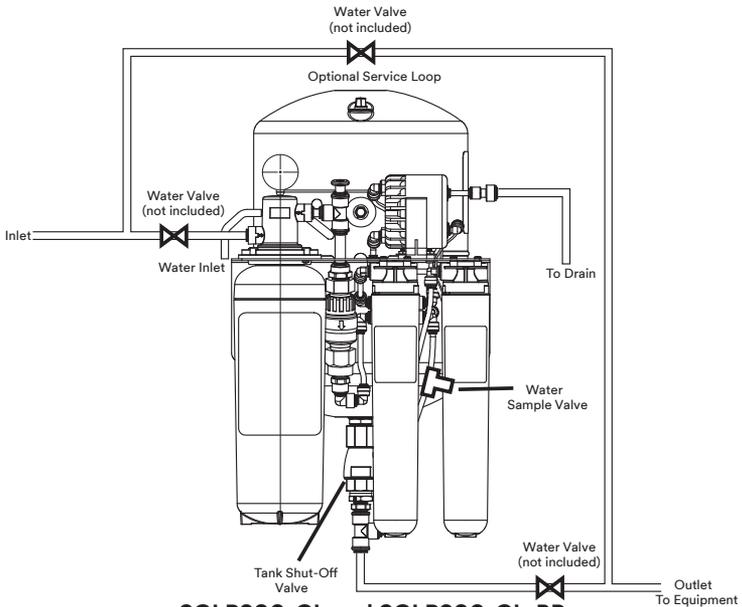
All connections are made with "Push-In" connectors. Refer to Figure 2 on the use of "Push-In" plastic fittings. Use care in routing the tubing to ensure that there are no bends or kinks.

1. Shut off water supply and water booster pump (if applicable). Water supply line to RO must be 3/8" tubing.
2. Insert one end of the 1/2" tubing in the inlet port of the RO system.
3. Run 3/8" tubing (not included) from the RO outlet to the inlet of the Foodservice Equipment. See Figure 1.
4. Run a 3/8" tubing (not included) from the "Brine Out" port of the permeate pump to the drain.
- 5a. For SGLP100-CL and SGLP100-CL-BP, ensure that the blue flow control is securely pushed into 1/4" tubing (one end of which is connected to the "brine in" port of the permeate pump). Insert the other end of that 1/4" tubing with the flow control at the bottom of the RO Membrane cartridge.
- 5b. For SGLP200-CL and SGLP200-CL-BP, ensure that the blue flow control is securely pushed into 1/4" tubing (one end of which is connected to the "brine in" port of the permeate pump). Insert the other end of that 1/4" tubing with the flow control at the bottom of the RIGHT-side RO Membrane cartridge. Also, insert the 1/4" tubing from right-side RO-head at the bottom port of the LEFT-side RO Membrane cartridge.



**SGLP100-CL & SGLP100-CL-BP**

If installing cleaning bypass, please refer to page 13



**SGLP200-CL and SGLP200-CL-BP**

If installing cleaning bypass, please refer to page 13

**Figure 1**

## HOW TO USE 'PUSH-IN' FITTING

### NOTICE

To reduce the risk associated with water leakage or flooding:

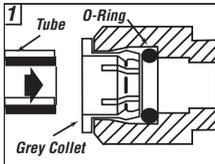
- Change the disposable pre-filter at the recommended interval; the disposable pre-filter **MUST** be replaced every 12 months or sooner.
- Change the disposable filter RO membrane at the recommended interval; the disposable RO membrane **MUST** be replaced every 24 months or sooner.
- Failure to replace the disposable pre-filter and RO membrane at recommended intervals may lead to reduced filter performance and failure of the filter, causing property damage from water leakage or flooding.

This product is outfitted with user friendly 'Push In' connectors. Proper use of the connectors is shown in the diagrams. It is most important that the tubing selected for use with these connectors be of high quality, exact size and roundness, and with no surface nicks or scratches. If it is necessary to cut the tubing, use a plastic tubing cutter or sharp razor knife. Make a clean square cut.

Should a leak occur at a 'Push-In' connector, the cause is usually a problem with the tubing.

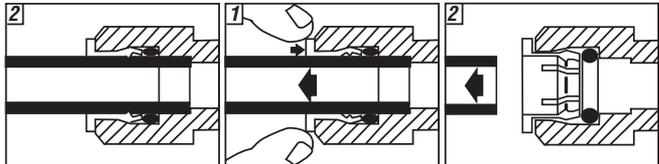
To Fix: **1. Relieve pressure. 2. Release tubing 3. Cut off at least 1/4" from end**  
**4. Reattach tubing 5. Confirm connection is leak free**

### To Attach Tubing



Push tubing straight in as far as it will go.

### To Release Tubing



Tubing is secured in.

Push in collet to release tubing.

Pull tubing straight out.

Figure 2

## SYSTEM START-UP

1. Remove the pre-filter cartridge from its packaging. Remove the red cap from the cartridge and moisten the o-rings with water. Insert the cartridge into the filter head. Then, turn the cartridge 1/4 turn to the right.
- 2a. For SGLP100-CL and SGLP100-CL-BP, remove the red cap from the RO-membrane cartridge and moisten the o-rings with water. Insert the cartridge into the filter head. Then, turn the cartridge 1/4 turn to the right.
- 2b. For SGLP200-CL and SGLP200-CL-BP, remove the red caps from both the RO-membrane cartridges and moisten the o-rings with water. Insert the RO-membrane cartridges into the filter heads. Ensure that the RO-cartridge with the blue-control is inserted into the RIGHT-side head, while the other RO-membrane cartridge is inserted into the LEFT-side head. Turn both the RO-membrane cartridges 1/4 turn to the right.
3. Check that all plumbing connections are secure.
4. Open the tank shut-off valve. Turn on the incoming water supply or beverage booster pump (if applicable) and check the system for leaks. If any leaks are noted, turn off the water supply and/or booster pump and correct the leak before proceeding. If a leak is detected at a push-in fitting, refer to Figure 2.
5. Open downstream valve (not included) and let water run through the RO to drain for 10 minutes.
6. Close sample valve.
7. Allow tank to fill (Approximately 60 minutes).
8. Open Water Sample Valve outlet to drain. Empty tank. Water flowing from tank will reduce to a fast drip when tank is empty.
9. Allow product water to run to drain for 24 hours.
10. Close sample valve and allow the tank to fill (Approximately 60 minutes).
11. System is now ready for use.

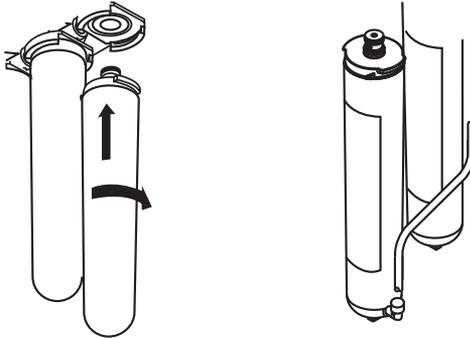
## CARTRIDGE & RO MEMBRANE CHANGE INSTRUCTIONS

### Pre-filter Cartridge (Replace every 12 months)

1. Close tank shut-off.
2. Turn used pre-filter cartridge 1/4 turn to the left.
3. Pull down on cartridge.
4. Discard used cartridge.
5. Remove red cap from new cartridge and moisten the o-ring with water.
6. Insert new cartridge into the filter head.
7. Turn new cartridge 1/4 turn to the right.
8. Open tank shut-off and inlet valves.
9. Check for leaks.
10. Flush cartridge per SYSTEM START UP INSTRUCTIONS on previous page.

### Membrane (Replace every 24 months)

1. Close tank shut-off and inlet valves.
2. Turn used RO membrane cartridge 1/4 turn to the left.
3. Pull down on cartridge.
4. Remove the tubing from the fitting (refer to Figure 4).
5. Discard used cartridge.
6. Remove red cap from new membrane and moisten the o-ring with water.
7. Remove the plug from the RO membrane.
8. Insert the tubing from Step 4 into the new RO membrane. Ensure the blue flow control is properly pushed into the tubing.
9. Insert new cartridge into the filter head. Be sure that the ears on the cartridge line up with the spaces in the head.
10. Turn new cartridge 1/4 turn to the right.
11. Repeat steps 5-12 from System start-up.



*Remove the tubing from the fitting before completely removing the RO membrane*

**Figure 4**

## CHECK TANK PRESSURE

**WHEN:** Yearly

**TOOLS:**

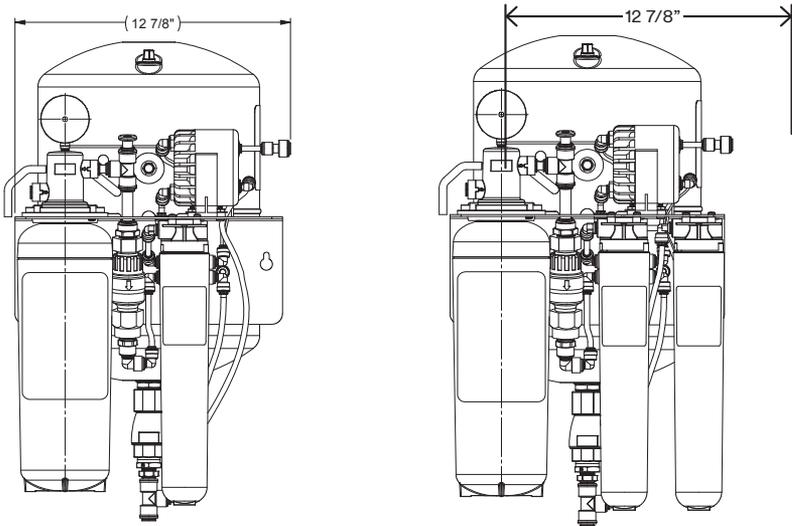
Piece of 3/8" tubing OR Bucket

Bicycle or tire pressure gauge

Bicycle tire pump

1. Drain water from the storage tank.
  - a. Shut off the inlet water supply by removing the pre-filter or water booster system if applicable.
  - b. Make sure the tank shut-off valve located at the top of the water tank is open.
  - c. Attach a piece of tubing (not included) from the water sample valve to drain OR use a bucket to catch water from the water sample valve.
  - d. Open the water sample valve and drain the tank until empty. Leave water sample valve open.
2. Unscrew the cap on the side of the tank to expose the Schrader® Air Valve.
3. Using a standard bicycle or automobile tire pressure gauge that is capable of reading pressure accurately from 0-10 psi. Connect the air pressure gauge to the Schrader Air Valve on the water tank.
4. Read the tank's air pressure.
5. The air pressure should be between 8 and 10 psi.
6. If the air pressure is below 8 psi or above 10 psi complete the following steps.
  - a. Using a standard bicycle pump add or release air pressure in the tank.
  - b. Repeat Steps 4-5 until the pressure is 8-10 psi.
  - c. Make sure the blue cap is replaced on the air pressure port.
7. Close the water sample valve.
8. Turn on the inlet water valve and/or booster system (if applicable).
9. Allow 60 minutes for tank to fill before operating equipment.

### Product Dimensions (Figure 4)



### Replacement Parts

Part Number	Description
5625004	RO Membrane Cartridge
5628902	HF65-CL Pre-filter
89-1331202	Permeate-pump
99-103301	Flow control
96-410502	Regulator, 80 psi
60-931401	Automatic Shut-off Valve
56-12301	Tank
60-235280	Tank Shut-off Valve

Contact dealer for replacement parts

### Storage Tank and RO System Sanitizing Instructions:

Important Note: Tanks should be sanitized every two years or if RO is out of service for an extended period of time.

Sanitizing the storage tank requires:

- Common household bleach (5.25% non-scented) or sanitizing agent
  - Eye dropper or plastic oral syringe
- a.) Turn off incoming water supply.
  - b.) Disconnect the 1/4" line from marked "Tank Outlet" to pressure tank.
  - c.) Insert 15ml (0.5 ounces) of bleach or sanitizing agent into 1/4" line to pressure tank.
  - d.) Reconnect the 1/4" line to pressure tank.
  - e.) Turn ON the feedwater supply.
  - f.) Wait 4-5 hours.
  - g.) Open pressure tank sample valve and empty tank to drain.
  - h.) Sanitizing is now complete.
  - i.) If there is any residual chlorine/bleach taste in the next tank full, drain tank completely a second time.

## Troubleshooting Guide

Problem	Cause	Solution	Notes
Unit never produces RO water/only provides bypass water	Low Feed Water Pressure	Repair existing Booster Pump	Contact Dealer
		Add Water Booster Pump	Only if Booster Pump is not installed.
Unit Runs Low or Out of Water	Low Feed Water Pressure	Repair Existing Booster Pump / System (If Applicable)	Contact Dealer
		Add Water Booster Pump	Only if Beverage Booster System is not installed
	RO Membrane Fouled	Replace RO Membrane	Feed Water Pressure, Temperature, RO Membrane Flow Rate should be checked before replacing Membrane
	Storage Tank Air Charge is Low	Drain Tank using Sample Valve, with Sample Valve Open, Pump Up Air Charge, 8 to 10 psi, Close Sample Valve	Unscrew Blue Cap to Access Schrader Air Valve
	Pre-Filter is Plugged by Sediment (Particles)	Replace Pre-Filter	A more frequent pre-filter change-out schedule may be needed or use HF60-CL or HF90-CL for high sediment load area
	Slow Leak In the Distribution Line	Repair Leak	The unit produces water slowly. A dripping leak can prevent the tank from filling
Unit Never Shuts Off (Continually Runs to Drain)	RO Membrane Partially Fouled, Unit cannot produce enough water to keep up with demand	Replace RO Membrane	High levels of hardness minerals may be present in feed water, monitor reject flow for plugging, contact dealer to add a water softener
	Product water check valve, within the RO Membrane allowed storage tank to flow backwards to drain	Check Reject Water flow to drain in the morning. Unit should be off and no flow to drain. If flow to drain exists, turn off the feed water valve and check for flow to drain in 10 minutes. If flow to drain remains steady, replace RO Membrane.	Reject Water flow to drain should stop when the feed water valve is off.

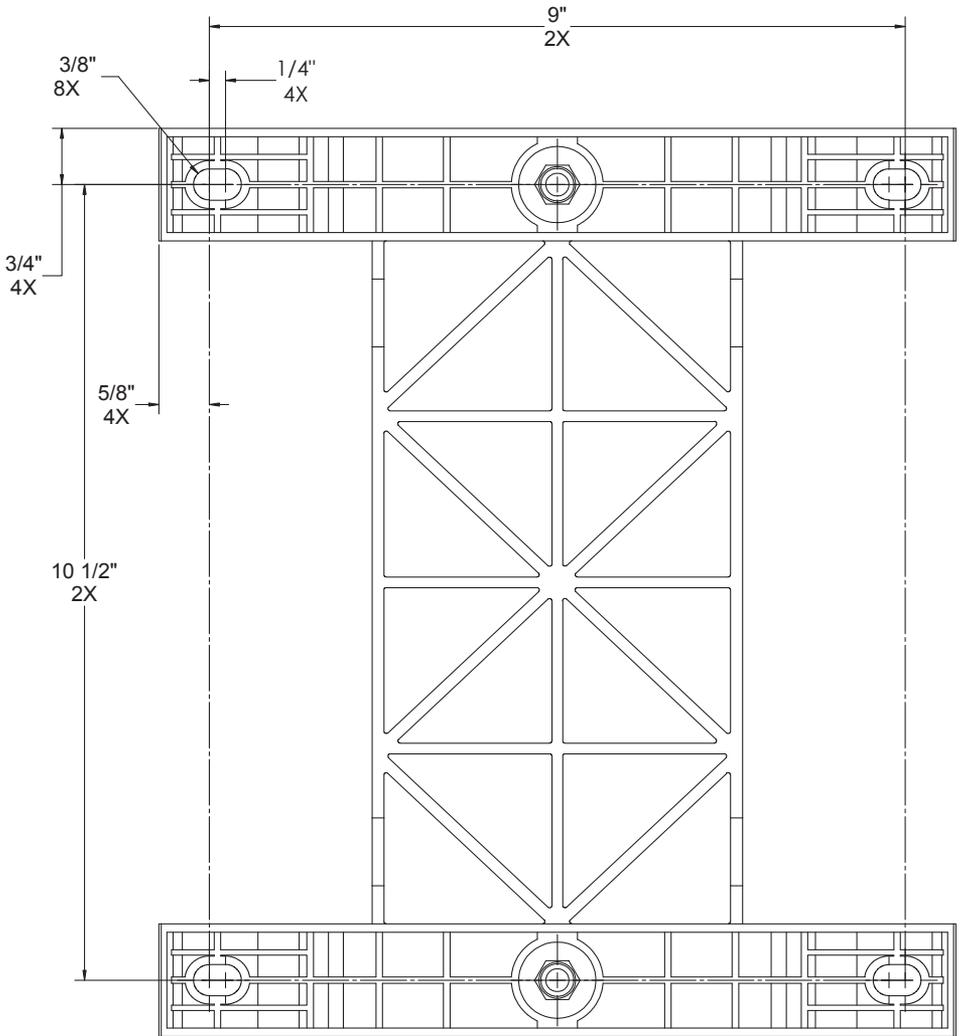


Figure 5

## LIMITED WARRANTY

**Product Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

**Warranty, Limited Remedy, and Disclaimer:** 3M warrants that this product (excluding filter cartridge or filter membrane) will be free from defects in material and manufacture for the period of (1) year from the date of purchase. The filter cartridge or membrane is warranted to be free from defects in material and manufacture for one (1) year. No warranty is given as to the service life of any filter cartridge or membrane as it will vary with local water conditions and water consumption. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. This warranty does not cover labor. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

This warranty gives you specific legal rights, and you may have other rights which may vary from state to state, or country to country. For any warranty questions, please call 866.990.9785 or mail your request to: Warranty Claims, 3M Purification Inc., 400 Research Parkway, Meriden, CT 06450. Proof of purchase (original sales receipt) must accompany the warranty claim, along with a complete description of the Product, model number and alleged defect.

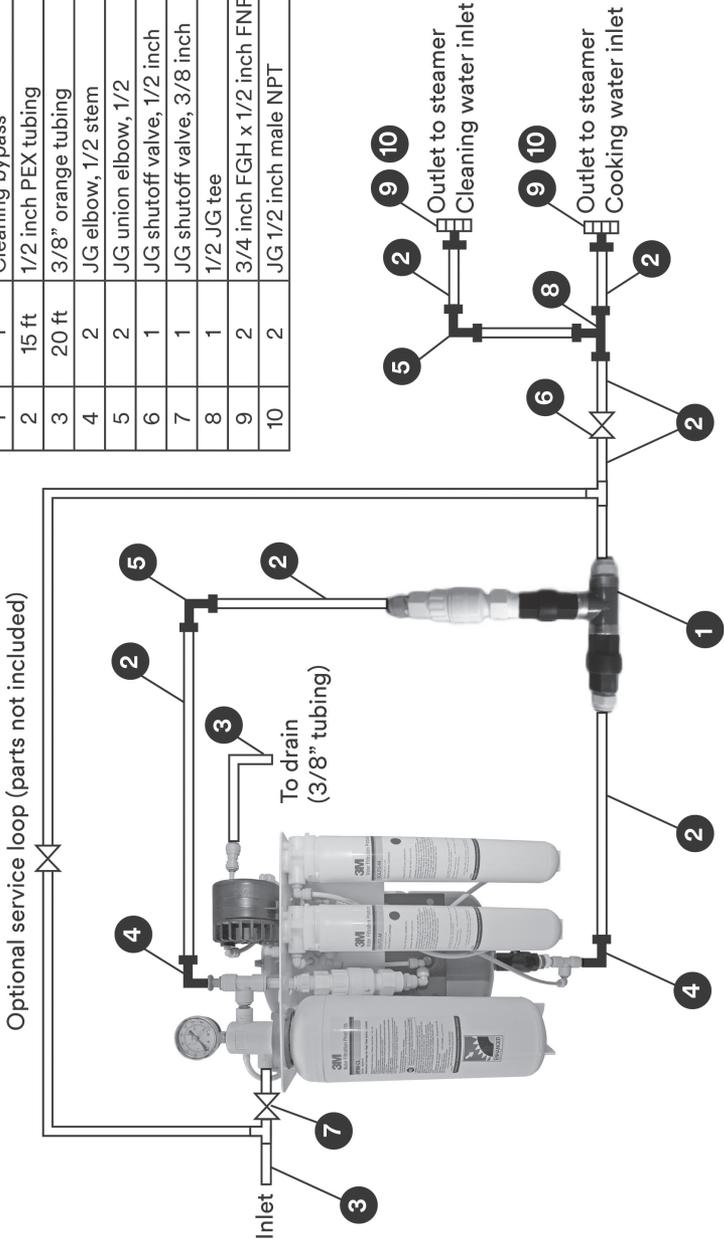
**Limitation of Liability:** Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

Intended Use: The SGLP Cleaning Bypass is intended for use with 3M™ Water Filtration Products for foodservice coffee, espresso, cold beverage, ice, vegetable mister, steamer and combi oven equipment. The SGLP Cleaning Bypass must be installed as specified in the installation instruction by a qualified professional.

# SGLP Cleaning Bypass - Connection Instructions

Parts List

Item	Quantity	Description
1	1	Cleaning bypass
2	15 ft	1/2 inch PEX tubing
3	20 ft	3/8" orange tubing
4	2	JG elbow, 1/2 stem
5	2	JG union elbow, 1/2
6	1	JG shutoff valve, 1/2 inch
7	1	JG shutoff valve, 3/8 inch
8	1	1/2 JG tee
9	2	3/4 inch FGH x 1/2 inch FNPT
10	2	JG 1/2 inch male NPT



# NOTES



NSF Certification applies to models SGLP100-CL and SGLP200-CL ONLY. Models SGLP100-CL-BP & SGLP200-CL-BP are not certified by NSF International



System tested and certified by NSF International against NSF/ANSI Standard 42, Standard 58, and CSA B483.1 for the reduction of the claims specified on the Performance Data Sheet.



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