

3M Science.
Applied to Life.™

3M™ Water Filtration Products

Reverse Osmosis. Applied to keepin' your steamer cleaner.

3M™ SGLP-CL Series
Reverse Osmosis System
For Combi-Ovens & Boilerless Steamers



Specially designed for combi-ovens and boilerless steamers

Because steam is 100% water, any impurities in the water have the potential to precipitate on the surfaces within the combi-oven or steamer potentially causing hard scale build-up and corrosion. In fact, the incoming water quality can have a direct impact on equipment life, equipment downtime and costly repairs.



What water related equipment problems do you face?

Combi-oven and steamer manufacturers have developed water specifications to protect their equipment from the potentially harmful effects of water impurities. Before installing a combi-oven or steamer, 3M recommends that you have your water tested to ensure that the incoming water meets the manufacturer's specifications.

Hardness and Total Dissolved Solids (TDS) are naturally occurring in all water supplies. When water is converted to steam, dissolved minerals in the water will precipitate out and cling to the oven surfaces. The scale forming minerals, calcium and magnesium, will precipitate out as hard scale which may result in:

- Inefficient operation and increased energy costs
- Increased maintenance costs
- Increased equipment downtime

Scale causes equipment down time and reduces efficiency.

1/8" of scale = 25% energy loss = \$300 per year (average)¹



Without filtration, impurities in water can result in increased build up resulting in increased maintenance and the possibility of reduced equipment life.



The SGLP-CL Series System helps keep equipment cleaner, which helps reduce maintenance costs and downtime.

Combi-Ovens & Boilerless Steamers
Combi-ovens and boilerless steamers have become the most versatile and efficient pieces of equipment in today's commercial kitchens. However, the addition of steam to the cooking process can present equipment problems depending on the incoming water quality.

Typical water specifications are:

Hardness	< 3 grains
Total Chloride	< 30 ppm
pH Range	7 - 8
Chlorine & Chloramine	0 ppm
Alkalinity	< 20 ppm
TDS	< 60 ppm

Hardness minerals can build up within steam equipment, thus increasing the probability of equipment downtime and the need for maintenance.

With a SGLP-CL System, you can save hundreds or thousands of dollars a year on scale-related maintenance and equipment-replacement costs.

Chlorides are associated with the salt content in water and are very common in many water supplies.

- At high temperatures, chlorides can attack stainless steel surfaces
- They can cause very rapid corrosion and destruction within a steamer or combi-oven.
- Chlorides cannot be easily removed from water

Chlorine and chloramines are added by municipalities to disinfect water. Chloramines are a combination of chlorine and ammonia and is an approved disinfectant by the EPA.

- In the USA, nearly 60% of the population in the USA is on chloraminated water.
- When water is converted to steam, chlorine and chloramines can create a corrosive environment potentially causing premature equipment failure.

¹ Based on \$900 annual energy costs with scale-protection; will vary based on the heating equipment

Protect your investment with the SGLP-CL series reverse osmosis system

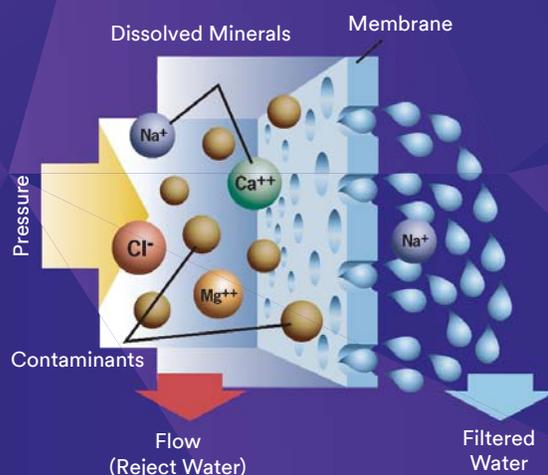
- 1 Integrated System Design**
Entire system, including the water storage tank, is integrated on a single wall mounted bracket for easy installation
- 2 Chlorine & Chloramines Reduction**
Sanitary Quick Change (SQC) prefilter cartridge includes an activated catalytic carbon block for the reduction of chlorine and chloramines from the incoming water
- 3 Non-Electric, Hydraulically Driven Pump**
Helps to maximize RO water production
- 4 High Production RO Membranes**
100 or 200 gpd production rate @ 50 psi incoming water pressure and 77° temperature

Optional Automatic Cleaning Bypass (not shown)

Allows the system to be used with single inlet combi-ovens. The system automatically goes into bypass during the cleaning cycle



How does the SGLP-CL system work?



The heart of the SGLP-CL system is a state-of-the-art high-production RO (reverse osmosis) membrane (see illustration). Raw water, under pressure, is forced through microscopic pores in the synthetic membrane while larger dissolved solids (ions, including calcium, magnesium and chlorides) and heavy molecular weight contaminants are continually flushed away as reject water. Filtered water travels between the double-sided membrane until it reaches a center core, which then delivers the product water to the storage tank.

Plumbing Diagram

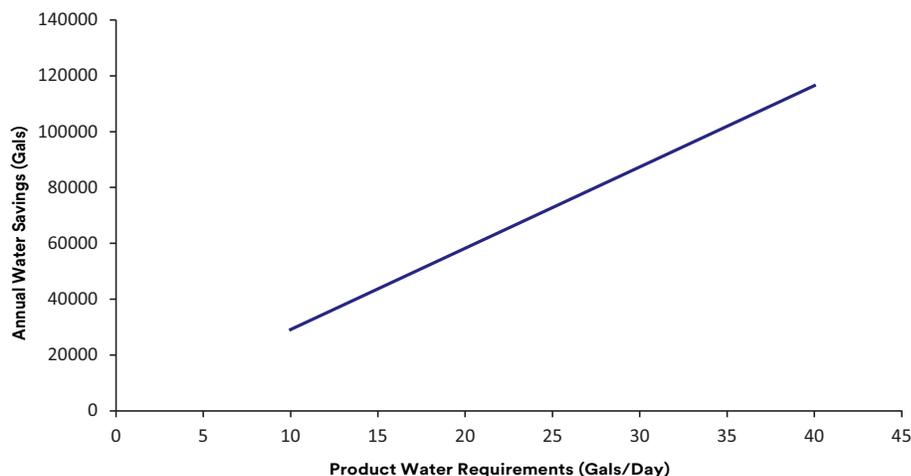
SGLP-CL RO systems are ideal for both single and dual water inlet combi-ovens and steamers. When used with a single water inlet oven, it is recommended that the cleaning bypass be installed. The cleaning bypass supplies filtered, non RO water to the oven during the cleaning process. The system incorporates quick-connect fittings for ease of installation.



Equipment Sizing

Number of Ovens	Model	Options
Single	SGLP100-CL	Use cleaning bypass if used on single water inlet combi-oven
Double	SGLP200-CL	

Annual Water Savings vs. Traditional RO Systems*



The SGLP-CL System from 3M results in considerable cost savings in both water utility and water sewage as compared to traditional RO systems. In fact, a restaurant can save nearly 400 gallons of water for every 50 gallons of water used!

* Comparison of SGLP200-CL versus a traditional RO system with 8% water efficiency per NSF 58 protocol. Actual savings may vary based on water temperature and inlet water conditions.

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