

3M™ Water Filtration Products
ScaleGard™ HP Reverse Osmosis System



Better
Water Means
Better Business



In the United States over

70% of water is 'hard water'.

Lime scale is the result of mineral deposits from hard water.

The Key is Recipe Quality Water™

- In the competitive foodservice industry, product quality and consistency are critical to business success.
- Equipment downtime and unscheduled service calls threaten customer satisfaction and profit margins.
- Specialty coffee is 98 - 99% water; ice and steam are 100% water; that's why it is critical to provide your equipment and customers with the highest quality water possible – Better Water means Better Business.

Why is Hard Water a Problem?

When water is cooled, heated or converted to steam, it leaves impurities behind, such as hardness minerals. These impurities cling to the solid surfaces they come in contact with, and over time, can build up and cause problems:

- Unsightly hard scale build-up
- Increased operating costs for scale and maintenance
- Increased equipment downtime
- Inefficient operation causing higher energy costs

Scale causes equipment down time and reduces efficiency.

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

Untreated Water



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

With ScaleGard™ HP System



The ScaleGard™ HP System helps keep equipment cleaner, which helps reduce maintenance costs and downtime.

Hardness minerals can build up within steam equipment, feed water pipes, coffee boilers and ice machine evaporator plates thus increasing the probability of equipment downtime and the need for maintenance.

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

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



Now you can have **RECIPE QUALITY WATER™** for **coffee, cold beverages,** **Ice and Steamers.**

Features & Benefits

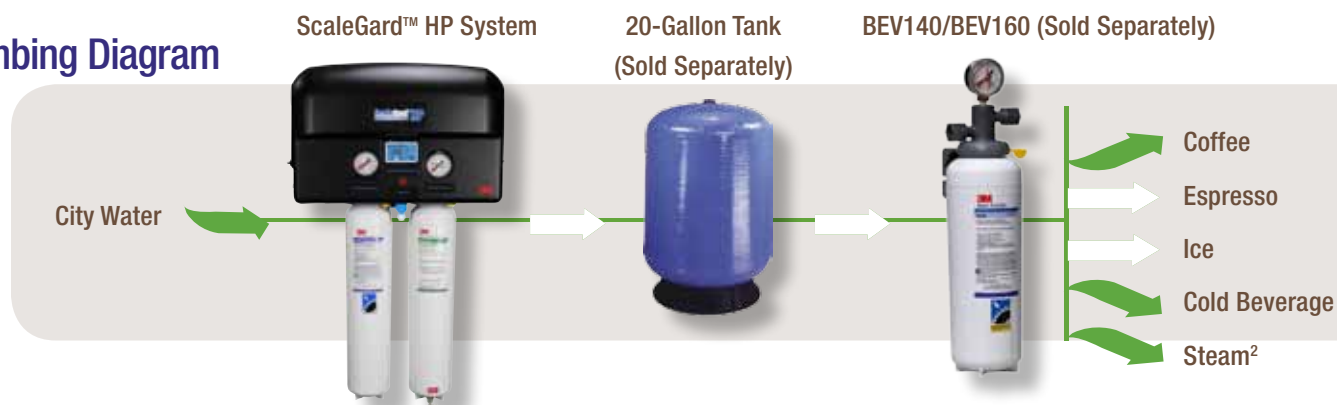


- 1** **Field Expandable**
Can easily double RO production by adding RO and Pre-Filter expansion heads. (Sold Separately)
- 2** **Chlorine/Chloramines Reduction**
Pre-Filter cartridge contains Integrated Membrane Pre-Activated Carbon Technology ("I.M.P.A.C.T.") media which includes Chlorine/Chloramines protection to reduce corrosion and protects the RO membrane.
- 3** **"Smart" Diagnostic Indicator**
Alerts the operator when the system requires maintenance.
- 4** **Precision Blending**
Allows store owner to dial in the desired level of dissolved minerals for Recipe Quality Water™.
- 5** **High Production RO**
Base system produces 750-938 gpd¹ (0.52-0.65 gpm) of RO water.
- 6** **Industry Proven Booster Pump**
The integrated heavy duty booster pump provides long pump life, can help reduce maintenance cost, and runs quietly.
- 7** **System Monitoring**
Real-time pressure and TDS monitoring.



- 8** **Permeate Rinse**
For added TDS reduction and control.
- 9** **Compact & Wall Mountable**
Allows for small footprint and easy installation.

Plumbing Diagram

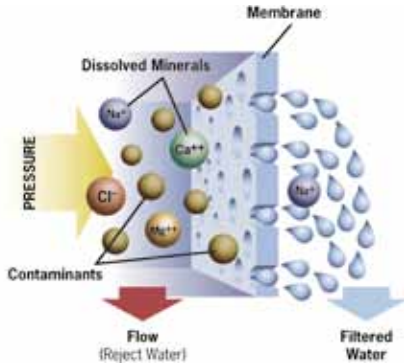


1. Production rate is dependent on water temperature and blending valve setting
 2. Post filtration usually not needed for steam applications

The ScaleGard™ HP System

the difference is **clear...**

How Does the ScaleGard™ HP System Work?



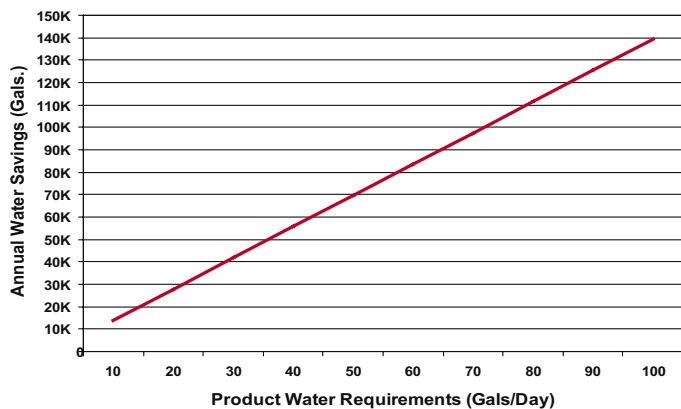
The heart of the ScaleGard™ HP System is a state-of-the-art high-production RO (reverse osmosis) membrane (see illustration). Raw water, under pressure, is forced through microscopic pores in the synthetic membrane while larger dissolved solids (ions) and heavy molecular weight contaminants are continually 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 tanks (not included).

Annual Water Savings vs. Traditional RO Systems*

The ScaleGard HP™ 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 up to 190 gallons of water for every 50 gallons of water used!

* See notes below:

- Comparison vs. traditional RO system with 20% recovery
- Assumes an incoming TDS value of 250. Savings will vary with different inlet TDS values.



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