



# Las Vegas Restaurant Opts for POE

By Tom Cartwright

*Farmer Boys, a national restaurant chain with 67 locations, prides itself on its farm-fresh ingredients and famous hamburgers. But the Las Vegas location's owner was less than satisfied with the quality of his facility's water. So he decided to look into a point-of-entry (POE) water purification system for his location.*

*Costs reduced, benefits realized with new water purification system*

Jimmy Phillippo had been seeking alternative water solutions for his location since its inception. With incoming hardness levels of 427 mg/L (25 grains) and TDS levels averaging 750 mg/L, his location opened utilizing a water softener for the hot water, carbon filters for his beverage stations and sediment, carbon and polyphosphate filters for his ice machine. Although these water treatment systems were functioning per their specifications, the location was still experiencing spotty glassware, cloudy ice and tea and flat-tasting sodas. The restaurant was also descaling its ice machine every month, and its 2-year-old water heater had started to rust, partially due to being installed in a small enclosed area next

to the water softener and salt storage.

Phillippo had experienced reverse osmosis (RO) systems in the past at previous restaurants he had owned and was looking for something similar for this Farmer Boys location. He had contacted several manufacturers of commercial/industrial RO systems, looking for one central system to serve all water-using appliances in his entire restaurant, but found the capital investment and annual operational costs prohibitive.

## A Better Fit

He ended up connecting with PureOFlow and its POE water purification systems. Initially a survey was performed at Farmer Boys and an

evaluation of its current water-related expenses was conducted (Table 1).

With total average water usage of approximately 900 gal and peak usage of 142 gal in the morning and 274 gal in the evening (Table 2), the best option appeared to be a POE water purification system that produced 2,100 gal per day (gpd), or 1.5 gal per minute (gpm), with 175 gal of storage. The storage handled peak water usage times, and the 2,100 gpm provided enough water for the restaurant's total daily water usage, with enough extra capacity to cover higher volume days and business growth.

The system was comprised of carbon and sediment filtration, followed by GE-patented RO modules. The RO water was introduced into a 175-gal storage tank. Attached to the tank was a programmable ozone generator set to run for one hour per day. From the tank the water was redistributed to the restaurant using a pressure sensitive delivery pump—producing up to 20 gpm at 65 psi.

During installation, the system was placed in a small water closet next to

their water heater. The existing water softener and individual filters were removed. New isolated water lines ran to the water heater and to syrup stations, coffee and tea brewers and ice machines. It took a total of four hours to complete the installation.

Within one week of installation, the restaurant observed visual improvements to its ice and beverages as well as substantial cost savings.

After installation, water samples were taken. The hardness levels had dropped to 30 mg/L (1.75 grains), and the total TDS levels dropped to

60 mg/L; the average TDS rejection was 92%. Within one week there were significant improvements, including ice cubes and tea going from cloudy to crystal clear, glassware and silverware coming out spot free without requiring any additional wiping down and better tasting soda.

### Clear Choice

One month later, a new survey was performed evaluating new water-related operational costs (Table 3). The monthly savings was \$429.49, with an annual savings of \$5,413.92.

“The taste is a lot better and you can really see the difference in the ice,” Phillip said. “It also seems to be better on my equipment. All my employees noticed the difference right away. I’m very excited to use PureOFlow in my new restaurant location that will be opening.”

Phillip was so pleased with the results, he purchased a system for his home. *wqp*

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**Table 1. Evaluation of Water-Related Expenses**

Appliance	Brand	Size	FILTERS			Monthly Cost	Monthly Cleaning	Monthly Accrual	Total
			#/Filters	Times/Year	\$/Filter				
Ice machine	Manitowoc	1,500 lbs	4	4	\$60	\$80	\$33.33	\$45	\$158.33
Beverages	Pepsi/Bunn	40 gpd	2	4	\$50	\$33.33	\$0		\$33.33
			Salt/Month		\$/Bag		Monthly Lease		
Water softener	Kinetico	1 ft <sup>3</sup>	12		\$4.50	\$54	\$45		\$99
			Hours/Day	\$/Hour	\$/Day	Monthly Cost			
Labor			0.5	12.5	\$6.25	\$187.50			\$187.50
Water heater	AO Smith	100 gal			\$0	\$0	\$0	\$83.33	\$83.33
						Monthly Detergent	Monthly Rinse Aid		
Dishwasher	Hobart					\$63	\$42.50		\$105.50
								Total	\$666.99

**Table 2. Average Water Usage**

Appliance	Peak Times/Water Usage					Rest of Day	
	Time	Gallons	Time	Gallons	Totals	Gallons	Totals
Hot water	8 a.m. to 10 a.m.	120	3 p.m. to 5 p.m.	75	195	230	425
Ice machine	11 a.m. to 1 p.m.	60	5 p.m. to 7 p.m.	45	105	90	195
Soda/tea	11 a.m. to 1 p.m.	60	5 p.m. to 7 p.m.	35	95	90	185
Coffee	8 a.m. to 9:30 a.m.	22	6 p.m. to 8 p.m.	14	36	15	51
<b>TOTALS</b>		<b>262</b>		<b>169</b>	<b>431</b>	<b>425</b>	<b>856</b>

**Table 3. Post-Installation Water Usage**

Appliance	Cost	Previous Monthly Costs	New Monthly Cost	Monthly Savings	Annual Savings
Ice machine	Filters	\$80	\$0	\$80	\$960
	Monthly maintenance	\$33.33	\$8.33	\$25	\$300
	Monthly accrual	\$45	\$22.50	\$22.50	\$270
Beverages	Filters	\$33.33	\$0	\$33.33	\$399.96
Water softener	Salt	\$54	\$0	\$54	\$648
	Lease	\$45	\$0	\$45	\$540
Labor	Wiping glassware	\$187.50	\$0	\$187.50	\$2,250
Water heater	Monthly accrual	\$83.33	\$41.67	\$41.66	\$499.92
Dishwasher	Detergent	\$63	\$0	\$63	\$756
	Rinse aid	\$42.50	\$0	\$42.50	\$510
RO systems	Filters (1)	\$0	\$5	\$(5)	\$(60)
	RO elements (6)	\$0	\$25	\$(25)	\$(300)
	Monthly accrual	\$0	\$135	\$(135)	\$(1,620)
		<b>\$666.99</b>		<b>\$429.49</b>	<b>\$5,413.92</b>