



HEAT DISINFECTION TECHNOLOGY SAVES YOUR CLINIC MONEY

Available on the CWP 100 H

The CWP 100 H offers cost-effective, consistent delivery of water meeting or exceeding ANSI/AAMI 13959 water standards for dialysis.

The semi-automated heat disinfection of the distribution loop and the automated chemical disinfection of the RO and membranes simply and easily reduce biofilm development and minimizes levels of endotoxin, fungi, yeast and other microbial contaminants.

Greater cost-effectiveness is ensured through systems efficiency and labor savings. The CWP represents a simple, convenient, and effective disinfection strategy. Advanced electronics and top quality components also ensure quiet, reliable, and safe operation.

We compared and completed a cost analysis of two system types used in hemodialysis water systems - a heat disinfectable water system and a standard chemical disinfectable water system. View the findings on the next page.



HEAT DISINFECTABLE

VS.

STANDARD CHEMICAL DISINFECTABLE DIALYSIS WATER SYSTEM

Heat vs. Chemical System Annual Cost Savings

Hard Costs

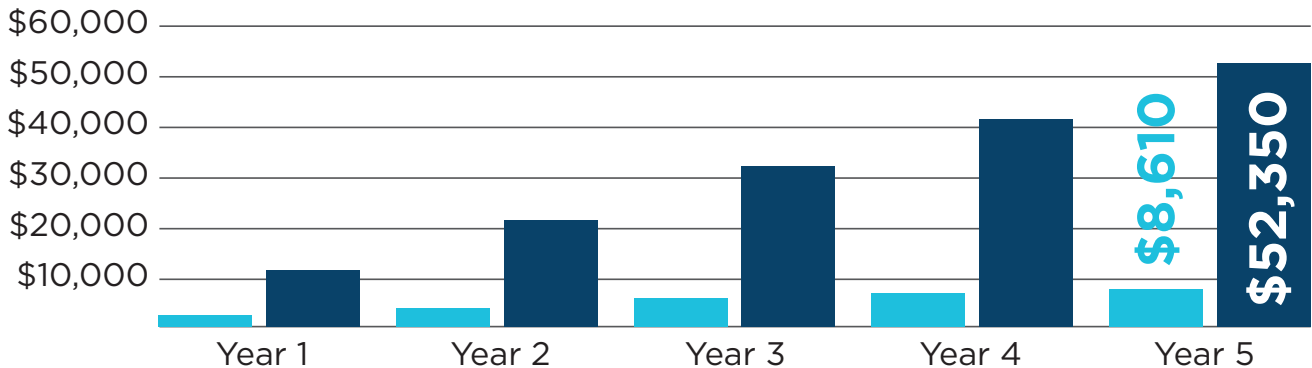
		CWP Heat Disinfect System ⁶				Typical Chemical Disinfect System ⁷			
		Required Action	Annual Frequency	Cost per Action	Cost per Year	Required Action	Annual Frequency*	Cost per Action	Cost per Year
Distribution	Labor¹	0 hr/cycle	365	\$29/Hour	\$0	4 hr/cycle	12	\$29/Hour	\$1,392
	Electrical ²	10 kw/cycle	365	\$0.14/kw	\$511	2 kw/cycle	12	\$0.14/kw	\$3
	Chemical³	Supplies	0	\$0	\$0	Supplies	12	\$175	\$2,100
	Water ⁴	0 gal/cycle	365	\$.0015/gal	\$0	1000 gal/cycle	12	\$.0015/gal	\$18
		Required Action	Annual Frequency	Cost per Action	Cost per Year	Required Action	Annual Frequency	Cost per Action	Cost per Year
Reverse Osmosis	Labor¹	0.1 hr/cycle	52	\$29/Hour	\$151	3 hr/cycle	52	\$29/Hour	\$4,524
	Electrical ²	2 kw/cycle	52	\$0.14/kw	\$15	2 kw/cycle	52	\$0.14/kw	\$15
	Chemical³	Supplies	52	\$18	\$936	Supplies	52	\$45	\$2,340
	Water ⁵	1400 gal/cycle	52	\$.0015/gal	\$109	1000 gal/cycle	52	\$.0015/gal	\$78
Total Annual Cost⁸		\$ 1,722				\$ 10,470			

*Minimum Annual Frequency based on requirements established by AAMI guidelines and CMS regulations.

Side Benefits

		Heat Disinfectable System	Chemical Disinfectable System
Distribution	Up Time Percentage	88%	74%
	Bacteria Control Effectiveness	High	Nominal
	Automation	Full	Manual
	BioFilm Control	Excellent	Good

5 Year Cost Savings Comparison



Footnotes

- Labor rates based on average U.S. clinic personnel fully-burden cost per hour. Rate may vary based on schedule, title, region, and/or if performed by outside vendor.
- Electrical rate based on U.S. national average at time of publication.
- Chemical supply cost based on using Minncare HD Disinfectant, Residual and 1% test strips, PPE, and other necessary items.
- Water usage required for chemical disinfect based on an average 250-gallon holding tank with 500ft distribution piping system.
- Water usage required for RO chemical disinfect based on comparable, mid-sized systems.
- CWP features an automated heat disinfect cycle during non-dialyzing hours, no attendee required. It requires no chemical usage on the distribution piping system. Water usage is extremely minimal due to self-contained hot water tank. CWP features a semi-automated chemical disinfect cycle during non-dialyzing hours, no attendee required once initiated. Low and High pH cleanings were not factored into this study.
- Per AAMI guidelines and CMS regulations, water treatment systems require a monthly disinfection of the distribution components and piping. If results indicate unacceptable microbiological levels, then an additional cost per disinfection, plus the cost of re-testing will be required. For RO disinfection, a factor of 52 was used for both systems to demonstrate a comparable analysis since a weekly routine is recommended for the CWP. Low and High pH cleanings were not factored into this study.
- Total Annual Cost is an estimated projection based on the criteria and years of experience.



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