

	Drinking-Water Producing Filters					Disinfection Techniques				Clean Water Production Techniques	
	Triton Ceramics/ FPT Filter	Potters For Peace Filter	Ceramic Candle Filter	Life Straw® Filter	Reverse- Osmosis Filtration	Distillation	Ultraviolet Disinfection	Chlorine Disinfection	Boiling	Activated Carbon	Biosand Filtration
<b>Water Purity</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes
<b>Clean Water Produces Drinking Water</b>	Yes*	No	No	Yes	Yes	Yes	Yes	Yes (if prefiltered)	Yes	No	No <sup>1</sup>
<b>Bacteria Remediation (%)</b>	99.9999%* or better	88-95% <sup>1</sup>	99% <sup>1</sup>	99.99999% <sup>2</sup>	100% <sup>1</sup>	100% <sup>4</sup>	99.99%	Some kinds	100%	No	96.5% <sup>1</sup>
<b>Cyst Remediation (Ex:Cryptosporidium)</b>	Yes*	Not tested	Not tested	99.9% <sup>2</sup>	Yes <sup>3</sup>	Yes <sup>4</sup>	90% <sup>9</sup>	No	Yes	No	99.9% <sup>1</sup>
<b>Helminth Remediation (worms)</b>	Yes*	Yes(untested) <sup>3</sup>	Yes(untested) <sup>3</sup>	Yes <sup>3</sup>	Yes <sup>3</sup>	Yes <sup>4</sup>	Unknown	No	Yes	No	100% <sup>4</sup>
<b>Virus Remediation</b>	No	No	No	99-99.8% <sup>1</sup>	Yes <sup>3</sup>	Yes <sup>4</sup>	99.99% <sup>9</sup>	Yes	Yes	No	70-99% <sup>1</sup>
<b>Chemical Remediation</b>	No	No	No	No	Yes	Yes <sup>4</sup>	No	No	No	Yes	No
<b>Costs</b>											
<b>Purchase Price USD</b>	25-50*	12-25	15-30	25-40	\$150	\$500	\$240 <sup>10</sup>	\$0.03 /20liter	\$5	\$30-40 <sup>8</sup>	\$12-50
<b>Throughput liter/hour</b>	2-5*	1-3	1-2	10	11	1/hr <sup>7</sup>	30/hr <sup>10</sup>	30 min wait	30' cycle	High	12/hr
<b>Cost to Maintain/year</b>	Not determined*	\$2/yr	\$4.5/yr	No Additional	Unknown	No Additional	No Additional	No Additional	None	No Additional	No Additional
<b>Device Life (liters)</b>	Not determined*	2 year	7000 liters	18,000 liters	Unknown	very long	(9000hr) <sup>10</sup>	Unlimited	Unlimited	8000 <sup>8</sup>	Over 500,000
<b>Cost Per 100 Liter</b>	No Additional	No Additional	No Additional	No Additional	\$0.11 <sup>5</sup>	\$8 <sup>6</sup>	\$0.002 <sup>11</sup>	\$0.15	\$0.60 <sup>1</sup>	No Additional	No Additional
<b>Open Source Technology?</b>	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	Yes
<b>Impact</b>											
<b>Energy Required For Use?</b>	No	No	No	No	Electricity	Heat Source	Electricity	No	Heat	No	No
<b>Manufactured in Indonesia?</b>	Planned	Yes	No	Import	Import	Yes	Import	Import	Yes	Yes	Easily Made
<b>Manufacturing Quality Control</b>	Every Batch	Minimal	Minimal	Unknown	Good	Good	Good	Good	User	Good	Minimal
<b>User Inputs</b>											
<b>Ready to use as sold?</b>	Yes	No	Yes	Yes	Yes	Yes	Yes	30min for chemical in water	Yes	Yes	User grows biolayer
<b>User preparations</b>	Ready to use as sold	10L water before use	Ready to use as sold	Ready to use as sold	5 liters wasted to produce 1 liter	Ready to use as sold	Ready to use as sold	Prefilter sediment and organisms larger than bacteria	Large batches= long cool times	Ready to use as sold	30-day biolayer preparation required
<b>Easy to maintain?</b>	Yes	Yes	Yes	Yes	Complex	Yes	Complex	Yes	Yes	Yes	Biolayer must be maintained
<b>Clean Water Required</b>	No*	Yes	No	No	No	No	Yes	Yes	Yes	No	No

\*=Still in testing phase as of Jan 2013

1=CAWST Statistic

2=<http://www.vestergaard-frandsen.com/external/lifestraw-functioning-and-efficacy-report.pdf>

3=Based on pore size. If the pores are smaller than organism, assume organism is removed.

4=Distilling water separates microorganisms and chemicals from water

5=[wri.nmsu.edu/conf/conf11/reverse\\_osmosis\\_deep.pdf](http://wri.nmsu.edu/conf/conf11/reverse_osmosis_deep.pdf)

6=[http://www.apswater.com/article.asp?id=37&title=All\\_About\\_Distilled\\_Water](http://www.apswater.com/article.asp?id=37&title=All_About_Distilled_Water)

7=[http://www.amazon.com/Steam-Pure-Stainsee-Counter-Top-Distiller/dp/B003ZJRAWO/ref=sr\\_1\\_6?ie=UTF8&qid=1358981221&sr=8-6&keywords=distiller](http://www.amazon.com/Steam-Pure-Stainsee-Counter-Top-Distiller/dp/B003ZJRAWO/ref=sr_1_6?ie=UTF8&qid=1358981221&sr=8-6&keywords=distiller)

8=[http://www.amazon.com/Watts-500315-Counter-Top-Drinking-Filter/dp/B0018MVZJE/ref=pd\\_cp\\_hi\\_0](http://www.amazon.com/Watts-500315-Counter-Top-Drinking-Filter/dp/B0018MVZJE/ref=pd_cp_hi_0)

9=[www.nesc.wvu.edu/ndwc/pdf/ot/tb/ot\\_tb\\_f00.pdf](http://www.nesc.wvu.edu/ndwc/pdf/ot/tb/ot_tb_f00.pdf)

10=[http://www.amazon.com/Watts-270154-4-Inch-110-Volt-Disinfection/dp/B0018N0WT2/ref=sr\\_1\\_2?s=hi&ie=UTF8&qid=1358986152&sr=1-2&keywords=UV+disinfection](http://www.amazon.com/Watts-270154-4-Inch-110-Volt-Disinfection/dp/B0018N0WT2/ref=sr_1_2?s=hi&ie=UTF8&qid=1358986152&sr=1-2&keywords=UV+disinfection)

11=[http://en.wikipedia.org/wiki/Ultraviolet\\_germicidal\\_irradiation](http://en.wikipedia.org/wiki/Ultraviolet_germicidal_irradiation)