



YEARS OF WATER

The ultimate household water purifier



The Water Elephant

A robust, durable and portable device that produces over 30,000 litres of purified water. It is self sufficient, easy to use and perfectly safe.



Saves money,
saves lives



A long term cost
effective solution



Designed with the end
user in mind

1 out of 10 people in the world lack clean, safe water. Half of them are in sub-Saharan Africa. Over 90% live in rural areas. One out of three rural water supply systems is not working at any given time. Household solutions are proven to be significantly more effective in preventing diarrhea.

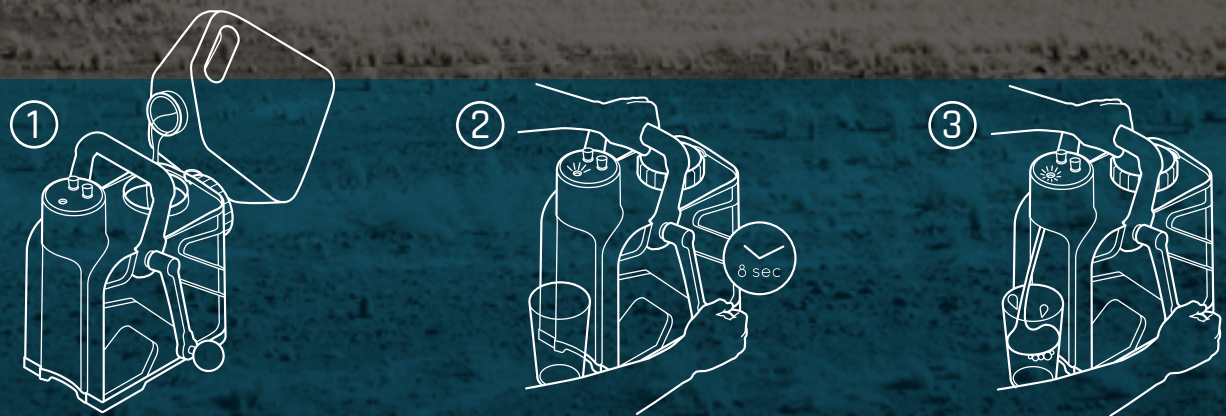
A sustainable, easy to use solution that gets the job done.

The water Elephant is designed to supply households with clean water for years with minimum cost and effort. This robust portable device produces 30,000 litres of purified water which means up to three years of clean water for over a family.

It is self sufficient, easy to use and perfectly safe: within approximately 8 Seconds, it destroys any bacteria, virus and protozoan and starts providing drinkable water in a flow of 1.5 litres/minute.

Its UV chamber is much more powerful than of a typical home water purifier, yet extremely energy-efficient: hundred fold more efficient than boiling.

Clean water in 3 easy steps:



1. Fill the tank
2. Crank the handle and watch the led/light:
 - Orange - you are at effective rotation rate; the lamp is ignited and warming for 8 seconds.
 - Green - the electric pump started working, which will lead to almost instant water dispensing.
 - Red - Clean the Quartz sleeve or replace water
3. Enjoy your pure and healthy water

Operational Characteristics

- Cranking torque : 3 Nm @ RPM>70*
- Manual Crank - Arm length: 170mm
- Primary water tank: 5 litres
- Primary Inlet Filter: 22 microns mesh
- Weight: 5kg empty / 10kg full.
- Flow rate: 1.5 L/min
- Pouring startup time: 8s from reaching operational rotation rate
- Permissible water: > 40% UVT
- Lamp wiper mechanism: use when needed

Microbiological Performance

The Water Elephant is designed to destroy the DNA of all bacteria, viruses and waterborne parasites. Selected microorganisms inactivation values are as listed:

Bacteria

- E.coli (including EHEC O157:H7) > 99.999%
- Shigella dysenteriae >99.999%
- Salmonella typhi >99.999%
- Vibrio cholerae >99.999%
- Enterococcus faecalis ("Faecal streptococcus") >99.999%
- Listeria monocytogenes >99.999%

Viruses

- Hepatitis A and E >99.999%
- Polio virus >99.999%

Protozoa

- Cryptosporidium parvum > 99.99%
- Giardia lamblia >99.9%
- Entamoeba histolytica >99.9%

Safety Mechanism

The UV-C irradiation available, under given UVT of water, in the purification chamber, is constantly monitored. The system shuts down and water is not dispensed, if purification cannot be achieved.

Electrical Data

- Maximal cranking energy: 25W
- Type of UV-C lamp: 16W (LPHO germicidal lamp)
- UV-C output: 4W
- Electrical Water Pump power: 4W
- UV-C Sensor Responsivity: 0.06 A/W

The ultimate Household water treatment solution

	Removal Rate	Ease of setup	Skill level	Flow rate	Life Time	Reliability/ Maintenance
Ceramic Filter	Effectively reduces bacteria and protozoa, less effective viruses removal	No Setup Needed	Needs cleaning after every use	1-3 litres per hour.	5000-10000 litres	Gets clogged frequently Filters need to be cleaned and / or replaced often
Sand Filter	effectively reduces bacteria and protozoa, low rate of Viruses inactivation	Big and heavy. Setup by trained personnel only. Min. 14 days	No skill needed Complex training in cleaning and maintenance	up to 50 litres a day	Depends on the materials available	Bio-layer must be cleaned regularly. After each cleaning, bio-layer needs several days to re-grow
Chlorination	effectively inactivates bacteria and some viruses less effective with protozoa	Min. 30 minutes setup time	Some skill needed	10 litres at a time	10 litres per Pack	Purifies small quantities of water Leaves aftertaste
Water Elephant	effective and efficient elimination of all Bacteria viruses and waterborne parasites	No Setup Needed	No skill needed. Self Explanatory. Easy to use	1.5 litres/ minute	3 years/ household solution. over 30000 litres	Min. 3 years with no maintenance.

About Years of Water

Years of Water was founded by key players in the infrastructure, education and water in developing countries. After spending years of research in Africa, developing countries, we have identified the need for a scalable, long term, durable and independent Household Water treatment solution. Point of use solution that would free individuals and families, with no access to improved water, from the constant struggle for safe drinking water. With combined experience of half a century, we have developed the Water Elephant - a cost effective, independent household solution which lasts long and is easy to use. It requires zero maintenance. It is portable and environmentally friendly. In a world where every drop counts, the water elephant is a great answer to water scarcity.

Contact info:

Years of Water

Head Office: Suite 7B & 8B, 50 Town Range, Gibraltar GX11 1AA

Tel: +350 2004000, Fax: +350 20040404

www.yearsofwater.com

Mail: info@yearsofwater.com

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