

## Problem

Adventure Tourists, Military and Aid workers need access to safe, clean drinking water anywhere in the world.

People require hassle free access to clean, sterile, drinking water anywhere in the world.

## Insight

"There was no guarantee of clean drinking water in the village so I had to carry about 6 litres of bottled water" Christine Wallace, Aid worker for Flying Mission, Zambia

" I used chorine tablets and they take half an hour. First you have to pour your water through a cloth then put in the tablet and leave for half an hour. ... it tastes horrible" Tom Malloy , Gap year traveller



# Current Solutions

## Chlorine tablet

Take 30 minutes to work

Distorts taste

Tourists don't like using them

Potentially harmful to the environment

user rating  
**3/10**



## Bottled water

Expensive

Heavy to carry

Harmful to environment

user rating  
**4/10**



## Filter bottles

Large filters take up the majority of the bottle's volume, consequently there is little space for carrying water

Can be heavy and difficult to filter fully

Expensive to buy and replace filter parts

user rating  
**5/10**



## My Solution



A water bottle with a compact filter to remove the dirt and a wind-up UV bulb to sterilise the water.

The water bottle contains two chambers. Dirty water is put in an outer chamber and the inner chamber is plunged through it, filtering water particles as small as four microns.

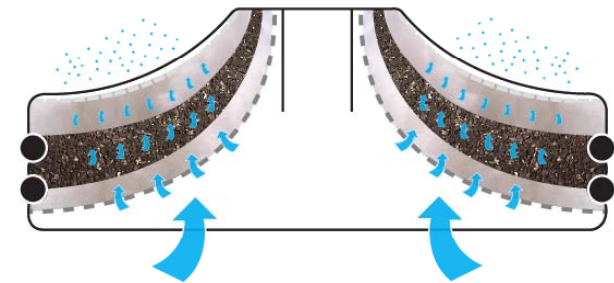
Once filtered, the water is sterilised by a wind-up ultraviolet bulb in a process lasting 90 seconds.



## Filtration



The water bottle contains a unique, custom designed filter which removes the particles in the water to below 4 micron. This is then ready for the UV treatment.



Dirty Water



## Advantages

Filters and Sterilises any water from any source within 2 minutes.

Powered by a wind-up mechanism. No reliance of external power supplies

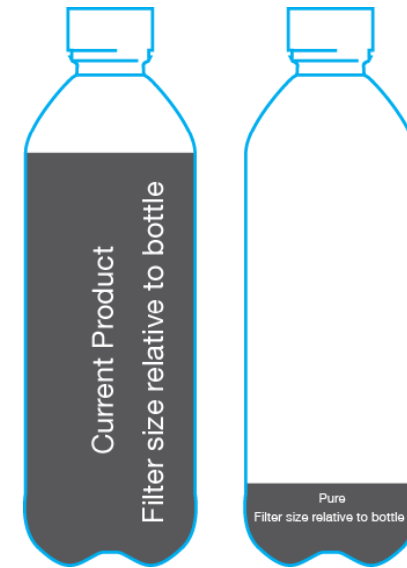
Provides a large capacity to carry around. (see illustration of relative size of Pure's filter compared to the current solution.

Compact and easy to carry for travellers, Adventure Tourists, Military and Aid workers.

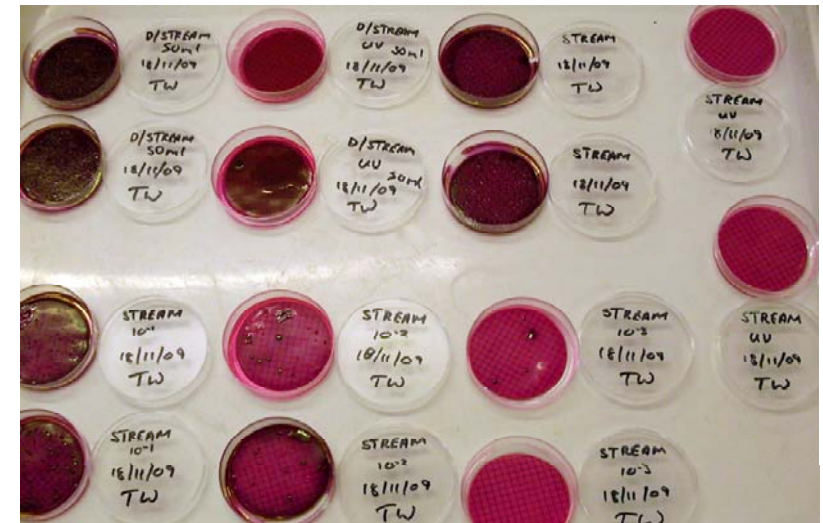
## Trials

The combination of filtration and UV has been scientifically proven to kill 99.9% of bacteria and viruses.

Tests were carried out at Loughborough University, UK



Relative size of filter in both current product and Pure



# Outcome



Open



Collect



Plunge



Wind



Drink

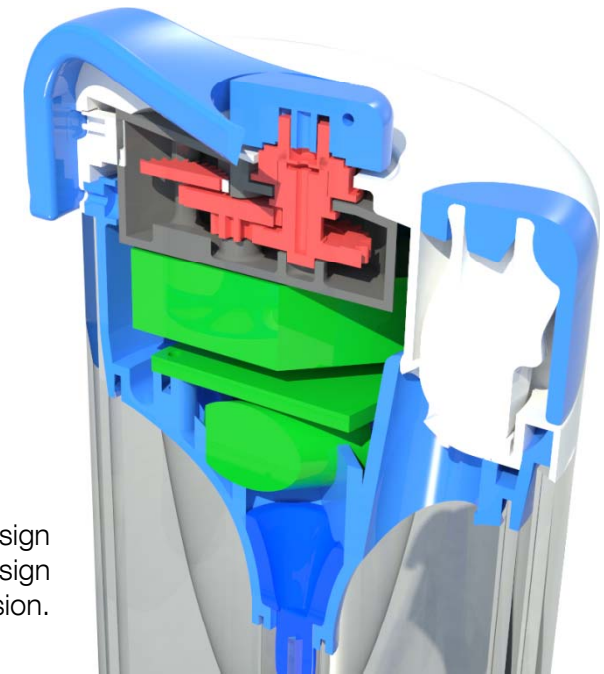
## Reviews

"Water is occasionally an issue even in some parts of Europe and when I did a 1500 mile sponsored walk round France and Spain in 2008 I could definitely have used your product." Phil Pelling, GoingCheap.

Pure would have made the journey much easier, reducing my load and relieving my fear of not having enough water to drink." Christine Wallace, Aid worker for Flying Mission.

user rating

**10/10**



Fully working prototype design and built. As well as a full design for manufacture version.