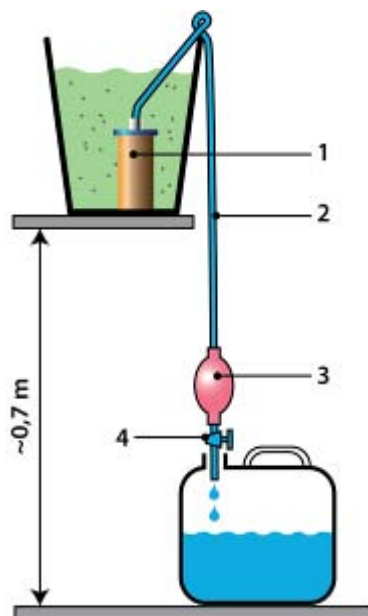


The Tulip water filter



Description

The Tulip water filter is a candle-type water filter which uses gravity siphon pressure to force water through a high-quality ceramic filter element. The innovative usage of the siphon results in a high flow rate of 4-5 liters per hour. The Siphon filter is very compact, as only a filter element, a plastic hose, and a valve are needed, while existing storage containers can be used. The filter is designed as a point-of-use filter in households. The filter element is impregnated with silver in order to increase the bacterial removal efficiency of the filter and to reduce the recontamination risk of stored filtered water.



1 — Filter element and prefilter

2 — Siphon hose

3 — Rubber bulb

4 — one way valve and tap

A vacuum is created by squeezing the rubber bulb. Water starts flowing by siphon function.

To clean the filter, close the tap and squeeze the bulb. This pushes the water back through the filter and cleans it (backwash).

How it works

The filter element is placed in a container with contaminated water, situated about 70 cm. above the clean water container. The siphon action is started by squeezing the rubber bulb. The siphon pressure forces the water through the filter element, ensuring a high flow of filtered water.

Cleaning of the filter

To protect the filter element against premature clogging when using dirty water, the filter element is covered by a washable pre-filter.

After some time, the flow rate will reduce because of clogging of the filter element. In this case, the filter can be cleaned by backwashing. This is done by closing the tap and squeezing the rubber bulb, which forces the water back through the filter element, pushing dirt particles out and unclogging the filter. This backwash option increases the lifetime of the filter element.

When additional backwashing does not result in a sufficient flow, a small layer of the ceramic material of the filter element has to be removed by scrubbing the filter with a scrub pad which is included.

Quality

The Tulip filter has been tested using a certified method by “Waterlaboratorium Noord”, an independent laboratory based in the Netherlands. It was found that even after passing 7000 liters the filter still removed E. Coli by more than 99.99%.

Publication

The Tulip Filter was presented at water forums as the WHO / HWTS network symposium in Accra and the World Water Week in Stockholm. Water specialist of UNICEF and other organizations were of the opinion that this option has many advantages compared to other water filters as the Pot filter and family Life straw.

Countries using the filter

Tens of thousands of filters are used now successfully by families in India, Cambodia, Tanzania, Mozambique, Madagascar, Zambia, Zimbabwe, Uganda and Sudan. In 2009 the filter will be introduced in some in East African countries, Vietnam and Ghana.

Production

The Tulip water filter was developed by Basic Water Needs Foundation from the Netherlands and is now produced by Basic Water Needs India Pvt Ltd. Production started early 2008.

Features
• Fast filtration rate from 4 to 5 liters per hour, 4 to 5 times the capacity of traditional ceramic candle drip filters.
• Operates on gravity, by using the siphoning effect. No electricity required.
• User friendly, easy to maintain, small in volume and weight.
• Plastic jar prevents ceramic element from breakage.
• Washable pre-filter prevents premature clogging of the ceramic filter element when using dirty water.
• Easy backwashing for cleaning the filter, by pressing the bulb after closing the tap.
• Easy to use scrub pad for cleaning of the filter element.
• The ceramic element filters till 7000 liters of contaminated water, depending on water turbidity.
• The filtered water contains a little bit of silver, lowering recontamination risks of stored filtered water (residual effect).
• Excellent removal of bacteria.
• Plastic end of effective life indicator (gauge) shows when replacement of the ceramic element is needed.
• Placement in water storage pot that people already have.

Technical specifications

Dimensions Tulip water filter	
Diameter filter element	60 mm
Height filter element	100 mm
Total volume including package	2.7 dm ³
Total weight	0.45 kg
Ceramic filter element	
Ceramic material	Sintered diatomaceous earth
Impregnation material	Silver
Water treatment	
Flow rate	4 to 5 liters per hour
Lifetime filter	Till 7,000 liters, depending on turbidity of water.
Effectiveness	More than 99.995% (Log 4.5) E-coli removal after 7000 litres.
Silver effluent	Between 3 and 6 ppp of silver during 7000 litres.
Turbidity	High turbidity removal
Cleaning	1e option. Backwashing 2e option. Scrubbing the filter element
Filter includes	Washable pre-filter Scrub pad for filter cleaning End of effective life indicator

Contact

Basic Water Needs India Pty Ltd
Thivan Kanthapa Nagar
Plot 116-117
Peryamudaliyar Chavadi
Kottakuppam Post 605104 Tamil Nadu (India)

Tel +91-(0)413-2623963 Mob +91-9786989104 or +31-645550539
Mail: bwnindia@gmail.com

