

Tulip Siphon Filter

Source Protection	Safe Transportation	Sedimentation	Filtration	Disinfection	Safe Storage
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What is it?

Manufactured by Basic Water Needs, the Tulip Siphon Filter is a ceramic candle filter for households. It uses a siphon and gravity to draw water through a ceramic filter element impregnated with silver. The user places the filter element in a raised container of water, squeezes the rubber bulb to start a siphon, and lets treated water flow out of the hose into a safe storage container.



Performance

Microbiological Effectiveness:

Parameter	Effectiveness
Bacteria	Effective (>90%)
Viruses	Somewhat Effective (>80%)
Protozoa	Very Effective (>99%)
Helminths	Very Effective (>99%)

Other Parameters

Effective at removing turbidity.

Source Water Requirements

Very turbid water may cause the filter to clog quickly and require more frequent backwashing.

Capacity

Can treat water at a rate of 4–5 L per hour. Amount treated per batch depends on the capacity of the containers used for source water and safe storage.

Lifespan

Manufacturer states it will last long enough to treat 7,000 L. For a household using 20 L/day, the candle will last just under a year. Plastic parts last 5 years.

Ease of Use & Acceptability

Operation & Maintenance

The user places the filter element in a raised container of untreated water, squeezes the rubber bulb to start a siphon, and lets treated water flow through the hose into a safe storage container. The safe storage container should be 70 cm below the source water container. When the filter clogs, the user cleans it by backwashing (closing the tap and squeezing the bulb to force water back through the filter), or by cleaning the ceramic candle.

Repair & Replacement

The ceramic candle is fragile and must be replaced if there are cracks or leaks, or when it becomes too thin because of repeated cleaning (likely every 6–12 months). Plastic parts are durable.

User Considerations & Preferences

A washable fabric layer prefilters large particles before water reaches the ceramic candle. The candle may clog if water is turbid. The filter should be kept out of sunlight to avoid degradation of plastic parts.

Feasibility

Availability

Produced and imported by Basic Water Needs. The ceramic candle cannot usually be produced locally.

Cost

Varies; usually US\$20-35 from a local agent. Replacement ceramic candles cost US\$8-12.

Size & Weight

Ceramic candle is 60 mm in diameter. Filter weight is 0.45 kg (not including containers).

More Information

Details and references: www.hwts.info/products-technologies/9803eb08/tulip-siphon-filter

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