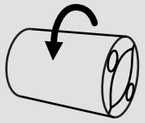
WaterDonut

survey

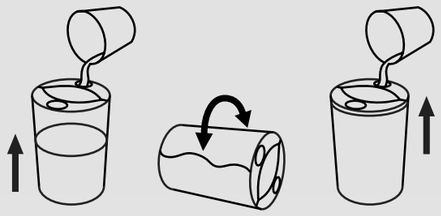
Use scenario



First step: Transport

Option A: you can roll the WaterDonut
Option B: you can carry it at the grips at the inside as well as at the outside (they additionally give stability)

The WaterDonut can be used to collect water and to disinfect it. By using it carefully the durability lasts up to 10 years.



Second step: Filling

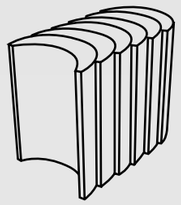
Preparation: for an effective purification air has to be „shaken-in“ so that the oxygen enrichment in the water is high enough for the SODIS-effect.

- first fill half the container
- shake in air by rolling it
- then fill the container completely

Third step: Disinfection

Employment: For disinfection place both parts with the transparent sides facing the sky for 6 hours in the sun.
SODIS-effect: the combination of the UV-radiation (infiltrates the water through the transparent top) and the heat (intensified thanks to the black bottom) of the sun add up to the reliable disinfecting effect.

There is no need for electricity or chemistry.



Fourth step: Storage and cleaning

Storage: water can be stored directly in the WaterDonut, there is no danger of recontamination caused by decanting into other canisters.

Cleaning: The big DIN-96 openings enable the user to reach the inside for cleaning.

Taking water: a small DIN-51 screw top with drain tap allows to take a regulated amount of water.

Advantages

Barrel-shape: the clipped-together WaterDonut can be rolled even by weak persons (every half contains 16 l).

Production: The canisters are made out of PMMA and are produced by blowing process out of half black pigmented blanks.
This one-material solution is cheap and **easy to recycle** at its end.

Innovation

Barrel-shape: enables weak persons to „shake in“ air.
Optional: for the best disinfection the filled-in water should already be fairly clear.
Therefore pour the water through a hung-in perforated basket (prefilter), if necessary filled with gravel for a better rough cleaning or with self-burned carbon for area specific contaminations (like arsen, metals or pestizides).

Innovation

Sickle-shape: it allows at no point of the container a water-deepness more than 10 cm, otherwise the UV-radiation would lose its efficiency. This limitation has avoided the use of bigger containers until now.

Material: An impact-resistant sort of PMMA (acrylic glass) like Plexiglass ZK 35 offers a good transmittance for UV-radiation and weather-resistance for a long durability.

Advantages

Sickle-shape: For the space-saving storage the units can be stockpiled almost consistently.

Connections: they fit for all DIN-certified standard parts

- minimal costs
- access to spare parts all over the world