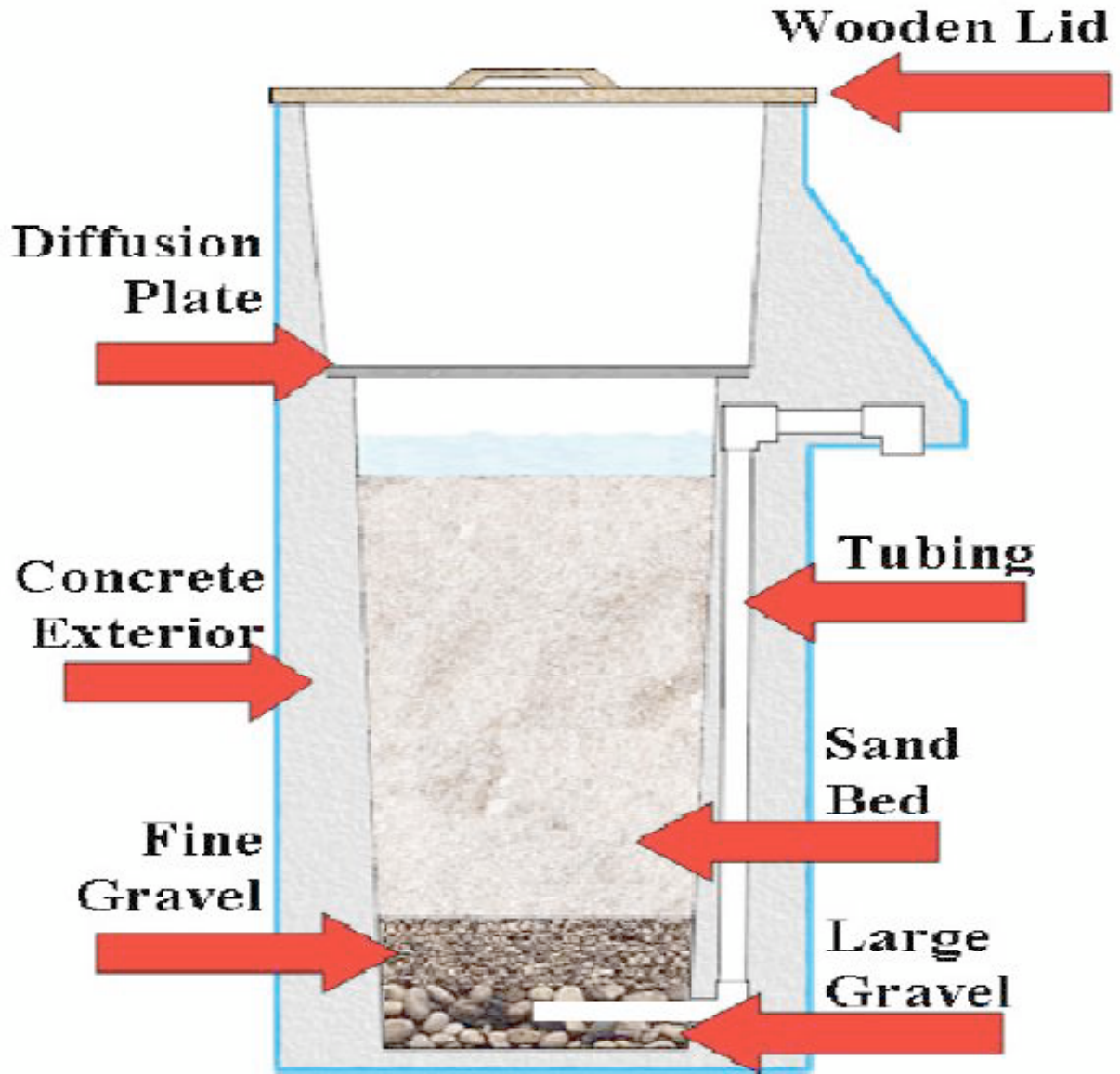


Filter ya Mchanga kwa Maji Safi Sand Filter for Clean Water



Kuandika: Jerry Buckingham
Tafsiri: Gail LaRocca na Lucy Renju

Filter ya Mchanga kwa Maji Safi Sand Filter for Clean Water

Tafsiri: Kiswahili halafu kingereza.

1. Filter ya maji inafanyiza ya saruji kwa taz ya mchanga na mawe madogo ndani. Mchanga na mawe na bacteria nzuri juu ya mchanga, zinaondosha mchafu, bacteria, sumu, vimeka, na kadhalika.

The water filter is made of cement with layers of small stones and sand inside. The sand and the bio layer on top of the sand remove the dirt, bacteria, viruses, parasites and other impurities.

2. Maji inamimbia juu ya filter inapohitaji. Kuna bamba juu ya mchanga inavyokuwa (mezwa kabisa) mshindo ya maji yanaanguka. Maji inapitisha sehemu ya mchanga na mawe na inaingia sehemu ya chini. Maji yanatokeza bomba ya shaba nyekundu na inatokea wazi filter na inawezekana kusanya kichombo

The water is poured into the top of the filter. There is a diffuser plate about 5 cm. above the top of the sand that absorbs the shock of the falling water. Water travels through the layers of sand and stones and flows out through a pipe. The water flows through the copper pipe and out of the filter and is collected in a container.

3. Kwa muda ya weki moja kutoka mbili vitu vizuri vimeongezeka maji himo juu ya mchang na vinawezekana kula vitu vibaya kama bacteria, sumu, vimeka.

During a period of one to two weeks, good organisms grow in the layer of water above the sand and the good organisms eat the bad organisms like bacteria, viruses, and parasites.

4. Filters hizi zinaweza kuondosha 90% feces, 100% protozoa, 50-90% vitu chenye uhai vinakuwa vya sumu, 67% na chuma (iron) na namna ya madini nyeusi (manganese), na takataka za chini (mashapo) (sediment). Filter haiwezi kuondosha fluoride.

These filters are able to remove 90% of feces, 100% of protozoa, 50-90% of organic and inorganic toxins, 67% of iron and manganese, and most sediments. The filter cannot remove dissolved minerals such as fluoride or salt.

Mashauri ya Filter Ya Maji

Kabla ya kutumia.
[Before using.](#)

Kutengeneza:
[Preparations:](#)

1. Ndani, upande wa chini: ongeza 5 cm ya mawe 1 cm.
[1.. In the bottom, add 5 cm. of 1 cm rock.](#)

2. Ongeza 5 cm ya mawe 1/2 cm.i
2. Next add 5 cm. of 1/2 cm rock.
3. Kuosha mchanga na mawe kabla ya kuweka
3. Wash the sand and rock before adding.
4. Ongeza mchanga mdogo ni square (siwe mviringo kama mawe ya mto) mpaka 7-8 cm kutoka mstari (ukingo) huko mabati jimepumzika.
4. Add sand until it is 7-8 cm. from the place where the diffuser plate rests.
5. Ongeza maji mpaka maji inaendelea, halafu ongeza kwa ndoo ya maji 20 litre.
5. Add water until filter starts running, then add one more 20 liter bucket of water.
6. Ruhusu maji itembe kutoa mpaka simama
6. Allow the water to flow until it stops.
7. Maji ingalikuwa nchini mdogo mstari (ukingo).
7. The water level should then be a little below the inside line.
8. Mahali maji nasimama inatakuwa iwe 5 cm juu ya mchanga.
8. The place that the water will stop will be 5 cm above the sand.
9. Pata kipande ya mabati ndani jinatamisha ubao
10. Put the metal plate inside, resting on the ledge.
10. Ikotayari kutumika.
11. The filter is ready to use.
11. Baada ya hapo, unafunike na mfuniko wa mbao, tayari kwa kutumika.
12. After adding water, place the wooden lid on top until you add water again.

Ukumbusho Muhimu

Important reminders

•Ukipotafuta mawe ya ukubwa tofauti yenye changanyika, ni lazima changanue. Tumie kisetiri madini (screen) kwa zitundu 1cm na kingine kwa zitundu 1/2 cm.

If you find that the stones of different sizes are mixed together, it is necessary to separate them. Use a metal screen with holes that are 1 cm. and another (screen) with 1/2 cm. openings.

•Ngusa ya mchanga ni muhimu sana.
The column of sand is very important.

•Oshe mchanga kabisa.

Wash the sand completely.

•Ni lazima jenge mzinga kwa filter kabla ya kuhamisha filter kama motokaa. Au toe sehemu ya foam chini ya filter. Kupate filter kwa upande kwa mfoko inaweka akiba. Bila hadhari itavunjika.

It is necessary to build a wooden crate around filter or place foam under the filter before moving the filter by car. Place the filter on its side with spout facing up. Without care, it will break.

Baada ya wiki mbili za kutumia, filter itakuwa kuondosha unchafu na bacteria karibu. Inaosha litre moja kila dakika hivihivi.

After two weeks of use, the filter will remove nearly all the bacteria. It cleans about one litre each minute.

- Mara kwa mara takataka zitagandisha filter na maji itaenda polepole. Koroge mchanga ipande wa juu bas kwa vidole yuko. Chota maji chafu na kikombe kidogo. Endelea hivi kama kawaida.

Occasionally dirt will clog the water filter and the water flow will slow. Stir only the top surface of the sand with your fingers. Remove the dirty water with a small cup. Continue to use as before.

- Baada ya umeongeza maji, funike filter kwa mfuniko wa mbao

After adding water, cover the filter with the wood cover.

- Mahali papo watu wanachemsha maji, waache muda ya wiki mbili kabla wanatumia bila kuchemsha au wanatumia kitone vibili ya 'bleach' kwa kila kipimo. Watu hawachemsha maji, hamna shida. Kama unatumia maji sasa hivi, maji ni 60% safi. Wanaweza kutumia maji ya filter sasa hivi.

In places where the people boil the water, wait for two weeks before using (the water) without boiling or add two drops of bleach to each litre of water. For people who do not boil the water, there is no problem. The water is 60% clean. They can use the filter water immediately.

- Upokusanya maji, tumie ndoo safi sana na imefunika kila mara. Unaweza kutumia ndoo 10l kwa shingo ndogo na kifuniko. Hutumie ndoo imejaza kwa maji chafu.

When you collect the water, use a bucket that is clean and covered. (10l container with a narrow neck and cap is good.) Do not use the same bucket that was filled with dirty water.

- Nyumbani funike maji safi halafu inatoa mahali pa baridi padogo. Tumie filter kila siku.

In the house, cover the clean water and store in a cool place.
Use filter each day.

- Kungekuwa watu wachache wenye madaraka kutazamia: Ni lazima, tumie filter kila sikum, kuwe na maji 5 cm juu ya mchanga wakati wote. Kama chafu kubwa majioni tumbuze maji kitani safi halafu mimine katika filter.

There should be several people who are responsible for the care of the filter: it should be used each day, the resting water level should be 5 cm. above the sand. If there is dirt in the water, filter it through a clean cloth before pouring it into the filter.

Ni lazima filter imepumzika kwa muda ya masaa machache kila siku.
The filter needs to rest a few hours each 24 hour day.