Links INTERNATIONAL

LIFEWATER FILTRATION SYSTEMS

A 'LOW TECHNOLOGY' SOLUTION TO CLEAN WATER DELIVERY

LifeWater is a unique filtration system designed for a mass market including remote, technology-poor third-world markets. The integral component of the LifeWater kit is the Doulton ceramic filter, which, with its unique silver colloid component, removes 99.9% of water particles and 99.9% of bacteria from unpurified water.

Current filtration systems using ceramic candles (including the Doulton Candle) rely on gravity to pull the water through the filter so that the delivery is slow and suited only to individuals or the home. In addition, current systems require specialist housing – such as stainless steel – which is prohibitively expensive to third-world markets. LifeWater has addressed the twin issues of efficiency and cost to design a system that is suitable both for home use and for organisations and businesses such as schools, clinics, offices, hospital wards, local cafés/restaurants.

BENEFITS OF THE LIFEWATER KIT

The LifeWater kit retains the best features of the Doulton filtration candle – high quality water, no-energy and reliability. However, specialists have designed a system that both enhances the throughput of water and is able to utilise the plastic containers readily and cheaply available all over the world. By tripling water through-put, and radically reducing the cost of the housing and water storage, the LifeWater filtration system brings affordable clean water 'on-tap' to a new mass-market.

Our field trials in Africa have demonstrated that our uniquely 'low-technology' clean-water solution is highly acceptable to a range of markets including families, schools and orphanages previously with no access to clean water. In Uganda tests have been carried out at a government level, with the system passing every test.

The ability of the LifeWater system to deliver potable water at the point of use reduces re-contamination of water between source (e.g. a well) and point of use. Evidence of improved health from the use of LifeWater is consistent and extensive.

In addition, LifeWater provides potentially enormous social and environmental gains by providing a no-energy solution to the necessity to boil water – currently the only clean-water option for millions of people.

FREQUENT QUESTIONS

Q1) When does a ceramic filter element need cleaning?

A1) Once the flow out of the filter becomes noticeably less than normal.

Q2) How do I clean a filter candle?

A2) Use the scouring pad included in the pack. Ensure that the end of the plastic mount does not come into contact with unfiltered water and dirty hands. Rubber gloves are recommended to be used during cleaning and NEVER use soap or detergents! (Please see below for more details)

Q3) My filter candle blocks up too regularly, what can I do about it?

A3) In some water conditions, there is so much sediment in the water supply that the filter element becomes blocked much quicker than in normal conditions. In these circumstances, it helps to use an extra filter upstream of the ceramic candle. This prevents the candle from becoming blocked too quickly, minimises cleaning and so extends the life of the ceramic filter.

Q4) When does a ceramic filter element need replacing?

A4) This depends on the type of candle being used:

We recommend that Sterasyl™ candles are replaced after 10,000 litres of water have passed through the candle, to guarantee optimum performance.

The amount of sediment in the water supply will ultimately govern the life of the ceramic. This means that the life of the ceramic might or might not exceed the capacity of the carbon insert, depending on the water quality. Whichever point is reached first – the one year usage or the ceramic becoming blocked to the extent where cleaning does not restore the flow – governs when the filter element requires replacing.

In most cases, the filter element should be replaced after 6 - 12 months of daily use.

Q5) I don't have a flow meter to gauge the amount of water that my filter has treated. How can I estimate how much water has passed through the filter?

A5) On average a family of four uses approximately 8 litres of water per day for cooking and drinking. Therefore, based on 10 litres/day for four people the life of your filter can be estimated in time rather than capacity.

Q6) Do I need to sterilise the candle after cleaning?

A6) The ceramic shell of Sterasyl™ contains trace amounts of silver to prevent microbiological growth. These elements are self-sterilising and should NOT be sterilised after cleaning.

Q7) How do I keep my filter housing clean?

A7) The filter housing is best cleaned by unscrewing the body from the head and wiping the surface and the inside of the body with a soft cloth dampened with warm water. IMPORTANT – DO NOT ATTEMPT TO CLEAN THE FILTER HEAD, WHICH COULD CAUSE CONTAMINATION OF THE FILTERED WATER.

Q8) What happens if I leave the filter unused for a period of time?

A8) If normal use of the filter is interrupted by holidays or vacations, growth of harmless heterotrophic bacteria may result in a 'flat' or 'stale' taste for a period of time when use of the filter resumes. Flushing the filter system for several minutes after any prolonged period of inactivity should eliminate the problem.

Q9) Will my Doulton® or British Berkefeld® filter element remove hardness?

A9) Unfortunately filtration does not remove hardness from water so Doulton® or British Berkefeld® filter elements will not affect the hardness in drinking water. Hardness can be removed by water softening, deionisation or magnetic and electrical conditioning devices.

Q10) Will my Doulton® or British Berkefeld® filter element remove all types of bacteria?

A10) No. The large number of different species of bacteria of different shape, size and growth characteristics stop the ceramic filter from being effective against all of them. The filter will, however, filter out 99.99% of all dangerous bacteria, cysts and particles.

Although the ceramic will filter all types of certain bacteria to some extent, it should be noted that any harmless bacteria, passing through the ceramic may multiply downstream of the filter. Since these bacteria are harmless, normally there are no problems and some bacteria are reported to be beneficial to health. However, if normal use of the filter is interrupted by holidays or vacations, growth of these bacteria may result in a 'flat' or 'stale' taste for a period of time when use of the filter resumes.

CLEANING YOUR FILTER

When do I clean the ceramic filter element?

When the time it takes for the water to filter into the lower chamber substantially increases.

How do I clean the filter element?

Hold the ceramic element under clean running water while scrubbing lightly with the scouring pad provided. Cleaning should be performed evenly working from threaded mount down.

How often will I have to clean the filter element?

If you are filtering water that is relatively clean and free from sediment you will probably only have to clean the filters every 6 month or so. On the other hand if you are filtering extremely dirty water, like that from a mud puddle or muddy river, you may have to clean them weekly. Keep in mind that you can clean the filters up to 100 times. So the more often you have to clean them the quicker they will have to be replaced.

How do I determine when the filter element must be replaced?

The ceramic filter will become slightly smaller from repeated cleaning. Eventually the ceramic shell will wear thin and crack. Anytime a crack occurs, the integrity of the filter has been lost and it must be replaced

How do I determine when the granular carbon inside the ceramic element is exhausted?

When the bad taste and odour of the source water is no longer removed Note: The ceramic shell will continue to remove pathogenic bacteria after the carbon has been saturated.

Is it possible to reactivate or regenerate the granular carbon in the filter element once it becomes saturated with chemicals?

Yes, some chemicals such as chlorine can be removed from the carbon by simply boiling the ceramic filter element in water for five minutes. Note: To avoid cracking the ceramic shell, place the element in cool water and then bring the water to a boil. Never place a cool element into hot water or place a hot element in cool water.