





## MAINTENANCE

When silt particles and dust in the water accumulate on the surface of the sand column, the water flow rate decreases and slows down the water treatment process. To revive the flow rate to normal:

1. Remove the filter lid.
2. If there is no water in the filter above the diffuser, pour water up to the bottom level of diffuser. 
3. Remove diffuser and gently swirl the water with your hand without disturbing the top surface of the sand column or the biolayer. Using a small cup, collect and dump the turbid water along with the accumulated silt and dust suspended within it. 
4. Carefully dispose off this water because it contains harmful pathogens. 
5. Repeat the process (steps 2 to 4) three or four times. 
6. Put the diffuser back in place and fill filter with water.
7. Check if the flow rate has increased; if not repeat the process.
8. Wash the lid and diffuser with soapy water.
9. Wash your hands with soap.



SEHGAL  
FOUNDATION

### About Sehgal Foundation:

S M Sehgal Foundation is a public, charitable trust registered in India since 1999, based in Gurgaon, Haryana.

With support from donors and partners, Sehgal Foundation designs and promotes rural development interventions that create opportunities, build resilience, and provide solutions to some of the most pressing challenges in India's poorest communities. The foundation team works together with rural communities to create sustainable programs for managing water resources, increasing agricultural productivity, and strengthening rural governance.

### HELP EMPOWER COMMUNITIES IN RURAL INDIA!

For more information, please email:  
[partnerships@smsfoundation.org](mailto:partnerships@smsfoundation.org)  
and visit  
[www.smsfoundation.org](http://www.smsfoundation.org)

**Sehgal Foundation**  
Plot No. 34, Sector 44, Institutional Area,  
Gurugram 122003, Haryana  
Phone: 0124-474 4100

TOGETHER  
WE EMPOWER  
RURAL INDIA

## JALKALP WATER FILTER



**Inexpensive**  
**Easy to install**  
**Zero maintenance cost**

The **JalKalp** water filter removes:

- biological impurities
- arsenic contamination (with adaptation)
- iron contamination
- turbidity



SEHGAL  
FOUNDATION



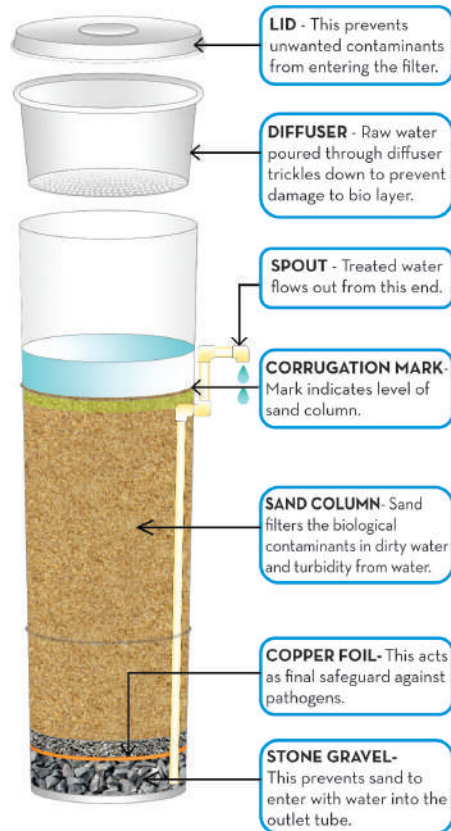
## WORKING PROCESS

Biological and physical processes combine to filter and treat water. Water poured through a diffuser in the filter travels through sand and stone gravel. Inside the filter, water trickles through tiny pores (spaces) between sand particles. Impurities, pathogens, and turbidity larger than the pores are trapped by the sand and removed. Up to 0.7 liters of water is filtered each minute.

### Treatment mechanism

- **Adsorption:** Microbes adhere to the surfaces of specially prepared sand, which has a slight electrostatic charge, and some die there.
- **Predation:** The biolayer that forms on top of the sand layer contains microbes; stronger ones kill weaker pathogens.
- **Mechanical filtration:** Fine-grain sand prevents the passage of bacteria, parasites, and worms.
- **Natural death:** The lack of oxygen and light further down in the filter causes more microbes to die off, and some pathogens die off naturally.
- **Germicidal copper:** Passage of filtered water through a copper foil at the base of the container acts as final safeguard against any pathogens escaped from above.
- **Oxidation:** This removes iron contamination.
- **Zero valent iron technology:** This removes arsenic contamination.

## PARTS & USAGE



## TIPS AND GUIDELINES TO USE

- Use the filter daily for most effective results.
- Using water from a single source is preferable in the filter.
- Wait 7 days after installation before using treated water for drinking.
- After installation, do not move the filter from its position.
- Always pour water through the diffuser.
- When water from the spout is stopped, make sure there is 4 to 5 cm of standing water above the sand top surface.
- Do not store food items inside the filter.
- Use separate containers for storage and for pouring water into the filter.
- To prevent re-contamination, wash the storage container with filtered water before collecting water from the filter, and cover the container with a lid after collecting water from the filter.
- Wash the lid and diffuser weekly, and wipe the outer body of the filter with a clean cloth.