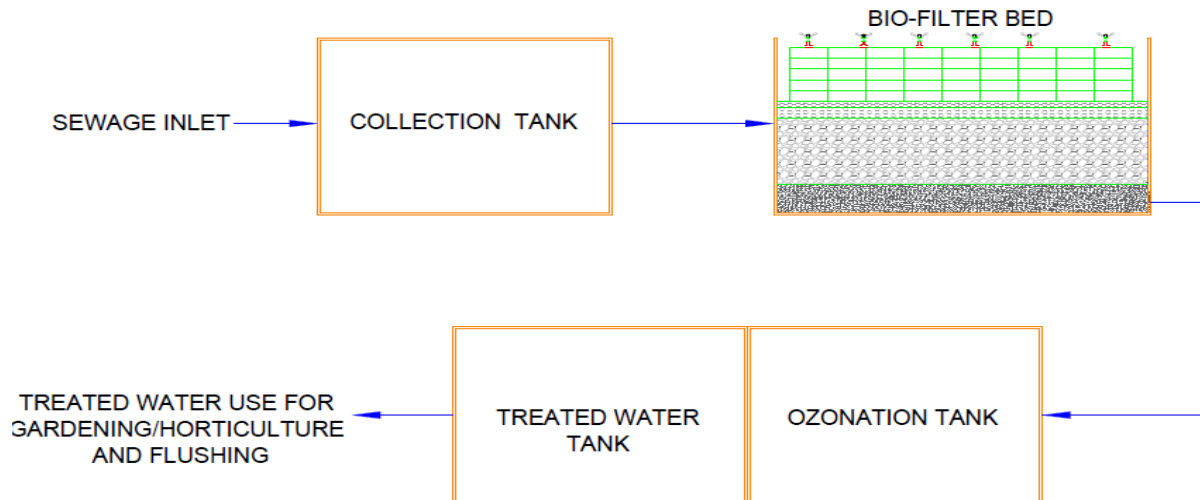


ABSOLUTE VERMI-FILTER



PROCESS FROM SEWAGE TO POTABLE WATER



PRINCIPLE OF AWPL VERMI-FILTER STP

Works on the principle of Vermi-Filtration where specially bred worm species and a mix of bacteria act on the suspended and dissolved solids in the raw Sewage and biologically degrade in an environmentally safe manner. This is a continuous process; therefore, the treated sewage keeps flowing through an inclined drain at the floor of the bio-filter into the treated sewage tank which can be used for further treatment or irrigation/horticulture etc.

Working Process

1st Level – VERMI-FILTRATION

- Vermi-Filter System is High efficiency and multi-filter medium which include worms, specially developed microbes, organic & in-organic media.
- Raw sewage pumped from the collection tank is allowed to pass through the screen to remove/separate the macro particles present in the effluent.
- Raw sewage is distributed evenly over the surface of the filter medium, by sprinklers.

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- As the wastewater slowly percolates down, naturally occurring microbes degrade the solids and organic matter, reduce coli from bacteria, and nitrify ammonium, producing clear and odourless water.
- Earthworm acts as media to host millions of micro-organisms, which help in rapid degradation of the organic matter present in the wastewater.
- Treated water uses: Ground water recharging, horticulture, agriculture , water body replenishment or rejuvenation

2nd LEVEL-FILTRATION SYSTEM AND OXIDATION

- Filtration through a natural gravity sand filter removes the final traces of suspended solids in the water.
- Advanced Oxidation supports the further break down of COD and BOD, Color and odour and more importantly coliform removal.
- Treated water uses: in addition to level 1, toilet flushing, AC cooling, maintenance activities, laundry, construction

3rd LEVEL- MEMBRANE FILTRATION AS ADVANCED TREATMENT (WRS)

- Specialized membrane filtration_System for converting the treated water into potable water quality matching BIS Drinking water standards.
- Treated water uses: In addition to level 1 & 2, drinking, cooking and bathing and repurposing manufacturing processes to create zero liquid discharge.

Treated water meets WHO, UNDP, Central Pollution Control Board, State Pollution Control Board and all accredited labs approved by the Pollution Control Board

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The Problem we are addressing via our AWPL VERMI-FILTER

31 billion litres per day of untreated sewage leaching into our ecosystem which leads to various waterborne diseases, agricultural contamination as well as environmental degradation.

In most of the villages and small towns in India, sewage flows untreated, either into the ponds and rivers or percolates into the groundwater, in metropolitan towns, like Delhi, more than 70% of the sewage remains untreated and flows into the river Yamuna Water crisis being severe in several metropolitan cities and towns where we have come to a point of day zero.

We address this major problem by providing 100% organic water recovery decentralized systems, which is simple, effective, affordable and moreover can be operated by unskilled labour.

Installations range from 1KLD to 50 KLD for modular structures and much larger civil based units starting from 100 KLD to 2.0 MLD , in addition to Mobile unit that treats 5KLD-10KLD