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DEPARTMENT OF
SCIENCE & TECHNOLOGY
सत्यमेव जयते

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TECHNOLOGY
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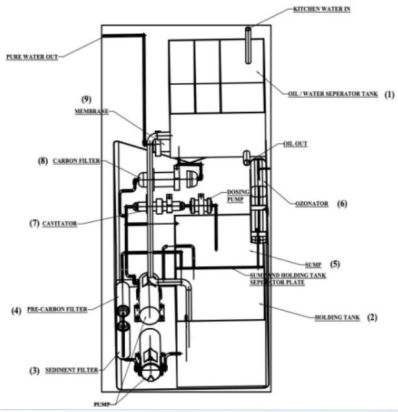
PENDING

(IN202111058596) Apparatus for greywater treatment



NEED

Over 60% of residential greywater remains untreated due to bulky, high-maintenance systems and inconsistent purification quality—leading to water wastage, hygiene risks, and rising urban water stress. What if recycling didn't require space, power, or technical expertise?

TECHNOLOGY OVERVIEW

This patented device treats greywater in a compact, low-maintenance setup. It integrates multistage filtration, oil-water separation, ozone-based disinfection, cavitation, and membrane filtration to produce reusable water. It handles soap, oil, and organic load effectively, ensuring space efficiency and consistent output suitable for domestic or institutional reuse.

TECHNOLOGY KEY FEATURES

Compact footprint, six-step purification, includes cavitation and ozone disinfection, pore size 0.001 microns, oil separation, polymeric carbon filtration, minimal sludge, low maintenance. A new system is simplifying greywater reuse—without disrupting households or infrastructure.

Read more here

MARKET ANALYSIS

The India greywater treatment market is projected to grow at 12.5% CAGR to 2033, driven by urban water scarcity, government reuse mandates, and sustainable housing. Globally, the greywater systems market is expected to surpass $1.2B by 2033. (Source: IMARC, 2024; Allied Market Research, 2023)

Target Industries

1) Residential and institutional builders integrating water reuse in green buildings 2) Decentralized water tech providers serving gated communities, schools, and small factories 3) Environmental engineering services deploying plug-and-play filtration for water-stressed zones

AT A GLANCE

- SDG 6 (Clean Water & Sanitation), SDG 11 (Sustainable Cities), SDG 12 (Responsible Consumption), SDG 13 (Climate Action)

Technology is available for licensing/ co-development.

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