The Reclaimer

Key Features
The Reclaimer is a liquid processing unit designed to rapidly treat blackwater to ISO 30500 standards, enabling onsite reuse and water conservation.

- Unit combines three treatment modalities into a compact, automated system ideal for urban and remote environments.
- Unit treats liquid waste from household or community toilets, dewatered sludge, and septic tanks.
- Operates independent of water and sewer connections.
- Modular and scalable configurations.
- Compatible with squat plate and pedestal toilets.
- Buffered batch processing allows the system to accept liquid waste during operation (250-350 L/day).
- External power required: 50-70 Wh/L

Process
- Ultrafiltration removes suspended solids and turbidity.
- Activated carbon removes soluble organic material.
- Electrochemical treatment removes pathogens.
Laboratory Performance Data
Reclaimer system performance with blackwater in laboratory tests. Data show reductions in chemical oxygen demand (COD), total suspended solids (TSS), and bacterial count in 88 separate trials. Dotted lines indicate ISO effluent standards for COD and TSS and disinfection target (< 5/ml) for bacterial count.

Status of Development
The Reclaimer was installed in Coimbatore, India, in February, 2019, for field-testing and is currently treating 250-350 L blackwater from up to 20 users per day.

Additional Partners

For more information
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