

The Reclaimer

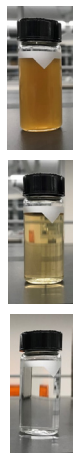
Key Features

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

- Unit combines three treatment modalities into a compact, automated system ideal for urban environments.
- Liquid waste from household or community toilets, dewatered sludge, and septic tanks can be treated.
- No additional water is required for operation.
- Buffered batch processing allows the system to accept liquid during operation (100-200 L/day).
- External power required: 20 - 1350 W

Process

- Ultrafiltration removes suspended solids and turbidity.
- Activated carbon removes soluble organic material.
- Electrochemical treatment removes pathogens.



Status of Development
Field-testing underway in India.

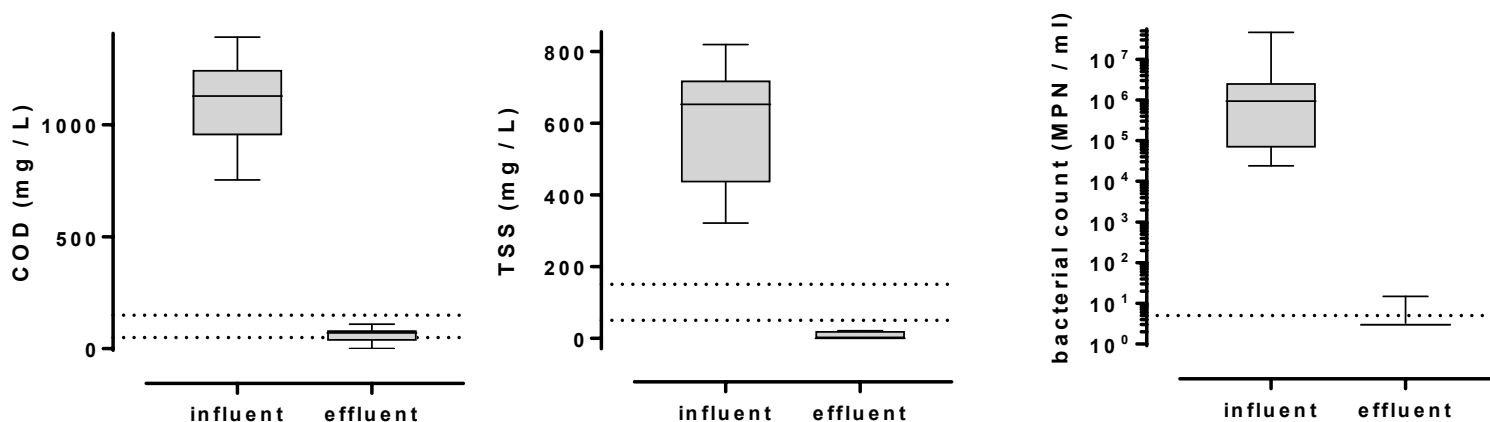
Additional Partners



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 13 separate trials. Dotted lines indicate ISO effluent standards for COD and TSS and disinfection target ($< 5/\text{ml}$) for bacterial count.

At a glance	
COD removal	88 - 100%
TSS removal	94 - 100%
pathogen removal	below detection in $> 95\%$ of trials
capacity	114 - 210 L / day
power	20 W (idle), 75 W (electrochemical treatment), 1300 W (ultrafiltration)



Field-Testing

The Reclaimer was installed in Coimbatore, India, in February and is currently treating blackwater from up to 20 users per day. Field-testing will continue for six months.



For more information

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