

# Sewage Water Treatment

**Transforming Waste into Worth –  
Sustainable Solutions for a Cleaner Tomorrow !**



**Scale Guard**  
**Water Engineering**  
The Total Water Management

## About Us

At Scale Guard, we specialize in innovative wastewater and sewage treatment solutions that play a vital role in sustainable water management. Our advanced treatment plants are designed to address water pollution, ensure resource recovery, and safeguard public health. By combining cutting-edge technologies, efficient designs, and eco-friendly practices, we transform wastewater into a valuable resource, contributing to a cleaner, greener future.

Scale Guard's solutions ensure effective wastewater treatment for safe discharge or reuse, promoting environmental sustainability and supporting diverse industries and communities.

## Mission

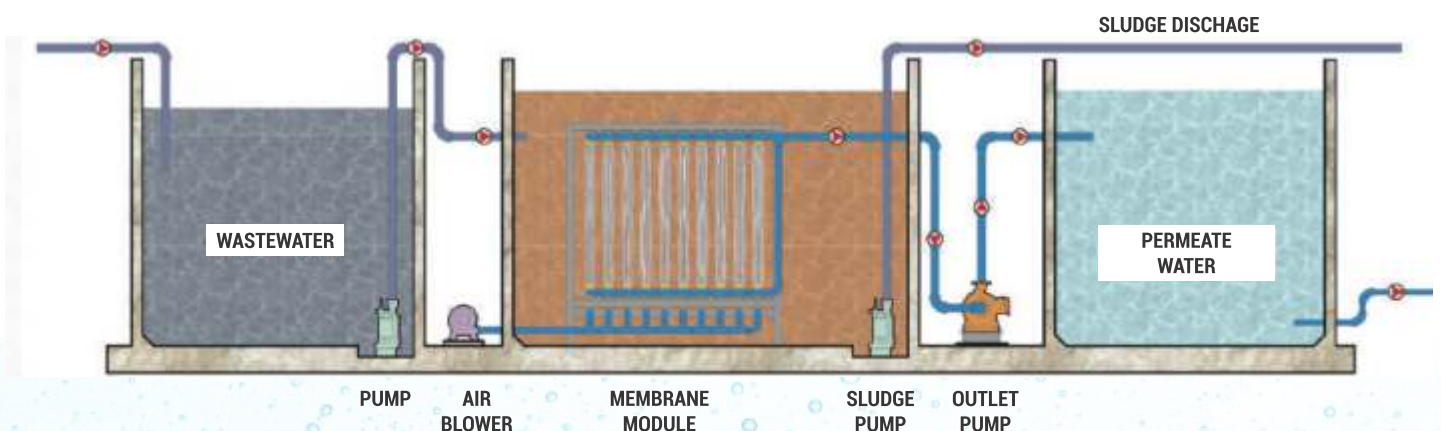
To deliver innovative and sustainable wastewater management solutions that protect the environment, conserve resources, and improve the quality of life for communities, industries and ecosystems.

## Vision

To be a global leader in wastewater management by pioneering advanced technologies and promoting circular water solutions that ensure a cleaner, greener, and more sustainable future for all.

## Membrane Bioreactor Process (MBR)

Scale Guard MBR operates on the principle of biological treatment. Raw untreated wastewater is sent to Scale Guard reactor using a pre filter screen to prevent any larger debris, plastics etc which clogs the reactor. Scale Guard module is a bio-reactor fitted with necessary air diuser and filtration membrane with a pore size ranging from 0.1 micron to 0.06 micron. The reactor uses a membrane barrier (usually microfiltration or ultrafiltration membranes) to separate solids and microorganisms from the treated wastewater. Residence time of waste water within the reactor is controlled by drawing rate from the membrane module. Treated water is drawn from the reactor using suitable pump. As the pore size of the membrane is too small to allow any bacteria or other contaminants to pass through, the treated water at the outlet of the membrane is clean with reduced organic content. This water is thereafter is dosed with necessary chlorine and sent for eventual reuse or discharge



## Advantages

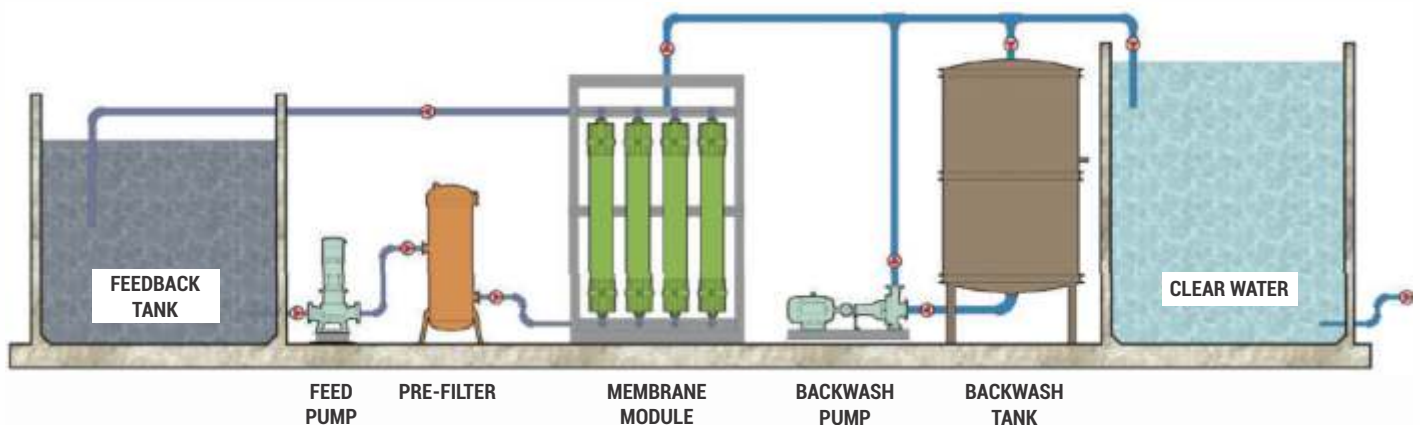
- Better COD/BOD reduction compared to ASP, MBBR, FAB and others.
- Lower sludge production Higher nutrient removal compared to conventional process
- Better treated water quality.
- Curtailed fouling
- Reduced footprint for tertiary treatment.

## Application

- Sewage Treatment
- Effluent Treatment
- Compact sewage treatment plants
- Water reuse and reclamations.

## Ultrafiltration System (UF)

Scaleguard is a UF membrane separation process where water filtration method, that acts as a barrier to viruses, particulates, bacteria, endotoxins, and other microbes suspended in the water which is driven by pressure. It has the rejective ability to separate insoluble or soluble substances from water. The filtration pore is general range of  $0.02\mu\text{m}$  -  $0.1\mu\text{m}$ . The filtration process is at room temperature, no phase change and no re-pollution. The feed flows either inside the shell or in the Lumen of the fibres.



## Advantages

- Effective particle removal
- Chemical free process
- Prevention from pathogen passage
- Microbial reduction

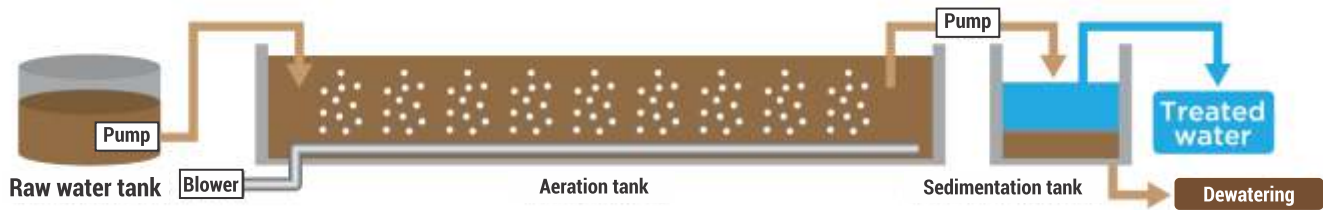
## Applications

- Lake / River Water Filtration
- Pre-treatment for RO system
- Post-treatment of ETP / STP projects

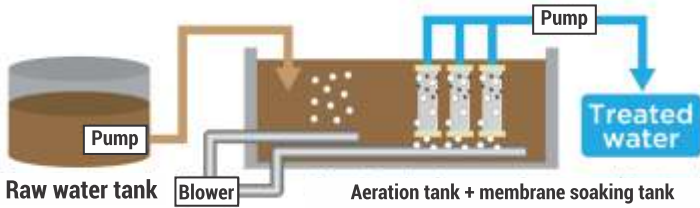


# Conventional process and membrane bioreactor

## Conventional process (conventional activated sludge process)



## Membrane Bioreactor (MBR)



### Membrane Bioreactor (MBR)

A wastewater treatment system that combines biological treatment by activated sludge and physical treatment by membrane separation.

Raw water is not directly filtered. Organic substances in the raw water are degraded by microorganisms and the activated sludge

## Actual Site Images



SCALE GUARD HEAD OFFICE :  
 702, 703, Goyal Trade Centre, Shantivan,  
 Borivali (East), Mumbai - 400 066 INDIA  
**Mob.** : +91-9833103951 / 7738092380  
**E-mail** : mitesh@scaleguard.co.in  
 yscaleguard@hotmail.com  
**Web** : www.scaleguard.co.in

SCAN FOR WEBSITE

