

# Wastewater Treatment using MBR

## Mitsubishi Chemical Aqua Solutions



Jan. 2020

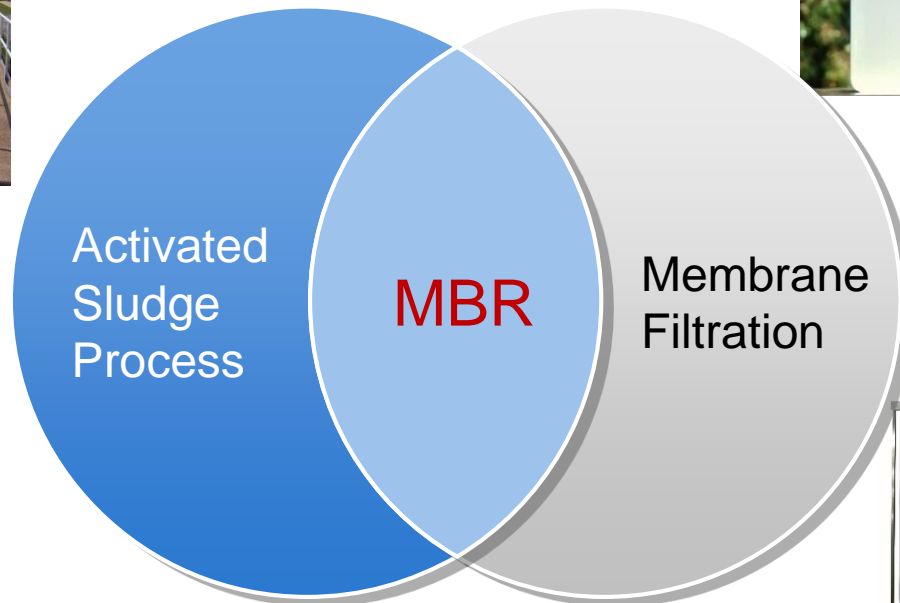
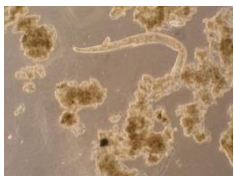
Overseas Business Division

Mitsubishi Chemical Aqua Solutions Co., Ltd.

- **M**embrane **B**io-**R**eactor is the combination of a membrane filtration process with a suspended growth bioreactor, and is now widely used for municipal and industrial wastewater treatment.
- When used with domestic wastewater, MBR processes could produce effluent of high quality enough to be discharged to coastal, surface or brackish waterways or to be reclaimed for urban irrigation, agriculture, industry reuse, etc.
- Other advantages of MBR's over conventional processes include small footprint, easy retrofit and upgrade of old wastewater treatment plants.



Microbiological Treatment



Before

After (MBR)



## Easy Storage

- ✓ Hydrophilic membrane surface **under dry condition**
- ✓ Easy handling and system start-up

## No Need Backwash

- ✓ Only filtration and relaxation
- ✓ Simple system and high recovery rate
- ✓ **No need reversible pump**



## No Need Drain Membrane Tank

- ✓ High permeate structure for back pulse chemical solution
- ✓ **Only in-situ CIP** without drain membrane tank

## Robust membrane

- ✓ **Reinforced braided PVDF membrane**
- ✓ Low risk of SS leakage caused by membrane brake

- Application ; Chemical, Semiconductor, Electrical, Pharmaceutical, Paper, Food, Beverage, Automotive, Municipal and Domestic Sewage, Hospital, Hotel, Septic tank etc.

