

## Membrane Separation of Activated Sludge for Waste Water Treatment and Water Recycle

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Membrane separation technology has become a more attractive technology on waste water treatment and water recycle in recent years. On this application, membrane does not take main part of treatment, such as decomposition or handling of organic matter in the waste water, but it is very important supporting method in the total system. Activated sludge is most popular method as mainpart. In the system, membrane works as a separator to obtain clear water after biological treatment, by which the permeate could be released, recycled or applied to further additional treatment, instead of conventional sedimentation, coagulation and sand filtration.

We would like to introduce our system cases for waste water treatment and water recycle, in which membrane separation technology works. In most of cases, membranes are applied to solid-liquid separation of activated sludge. Our experiences will be introduced as following items.

1. Introduction
2. Tubular Module
  - 1) Night - soil treatment
  - 2) Water recycle in the building and Rain water use
3. Plate Type Module (Flat Sheet) with non-woven clothe  
Energy saving for activated sludge treatment
4. Other applications (Hollow Fiber Module)
5. Plate Type Module (Flat Sheet)
6. Conclusion