

# STERAPORE™ 5000 Series

H O L L O W F I B E R M E M B R A N E M O D U L E S T E R A P O R E

## Industrial water recycling plant in Japan

CASE

03



**Location**  
Japan

**Capacity**  
720m<sup>3</sup>/d

**Application**  
As a part of production facility

**Operation started**  
2010

**Product**  
STERAPORE™ 5000

## Challenge

Need to reduce industrial water quantity as part of the client's CSR programs.

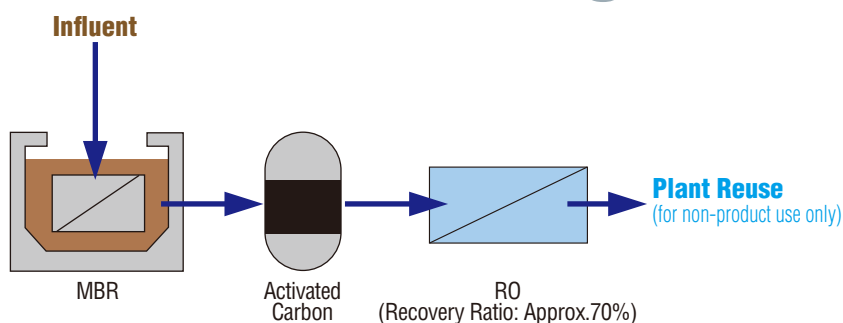
## Solution

Reuse a part of the treated water for CIP makeup water and beer bottle container washing using reclaimed water from production lines with Membrane Bio-Reactor (MBR) and Reverse Osmosis (RO) technologies.

## Benefits

Lower the client's water and wastewater bills in addition to contribution to their CSR activities.

## Process flow diagram



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# STERAPORE™ 5000 Series

H O L L O W F I B E R M E M B R A N E M O D U L E S T E R A P O R E

## Petrochemical plant wastewater recycling

07 CASE



### Location

Ningbo, China

### Furnished by

Mitsubishi Chemical Engineering Co.

### Capacity

6,000m<sup>3</sup>/day

### Application

Petrochemical Plant Wastewater

### Operation started

2012

### Product

STERAPORE™ 5000

## Challenge

- Reuse purified terephthalic acid (PTA) plant wastewater as cooling tower makeup to reduce the environmental load associated with effluent disposal and to cut the water bill
- Install all the membrane modules in the existing 10 meter depth tank without a shutdown of the WWTP

## Solution

- Retrofit of the existing WWTP with an MBR-RO system to obtain reusable water for the purpose
- Use of the existing beam to hang membrane modules to eliminate the guide pipe foundation work which requires a WWTP shutdown

## Benefits

- Reuse up to 70% of the wastewater (4,200m<sup>3</sup>/day) as cooling tower makeup
- No WWTP downtime

## Process flow diagram

