

# Effective Water Resource Utilization System

**Precious Water Resource... The Technology Maximizes Its Usage**

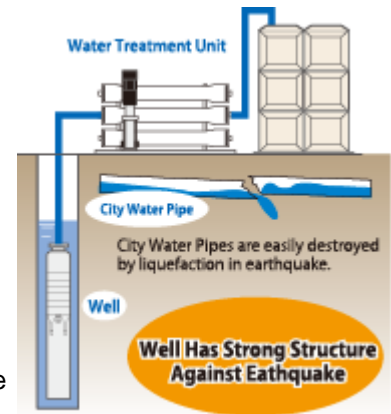


〔適用分野〕  
 地下水・工業用水・海水・河川・雨水・排水  
 高度水処理・食品等原料用水・排水リサイクル  
 総合水処理エンジニアリング

## Feature

### ■ Water Treatment System with No Limitation of Water Source

Our water treatment system is able to utilize water from various sources. We can construct a plant which exactly meets the clients' needs of the water quality and quantity in any area. We produce the plant from the design to the assembly, so that our plant can be utilized flexibly from a factory to a hospital.



### ■ Secured Water Supplying System Against Disaster

After the Great East Japan Earthquake, the demand of utilizing underground water has been increasing in order to secure drinking water. Water pipes are easily destroyed by liquefaction in case of earthquake, and it takes long time for restoration. On the other hand, a well has a better chance to survive because it moves with the quake. Also, the system can independently operate in case of power cut by installing an electric generator or a large water storing tank. In fact, we received many positive reviews from hospitals that our system functioned well under such circumstances in the Great East Japan Earthquake in March, 2011.

### ■ On-Site System

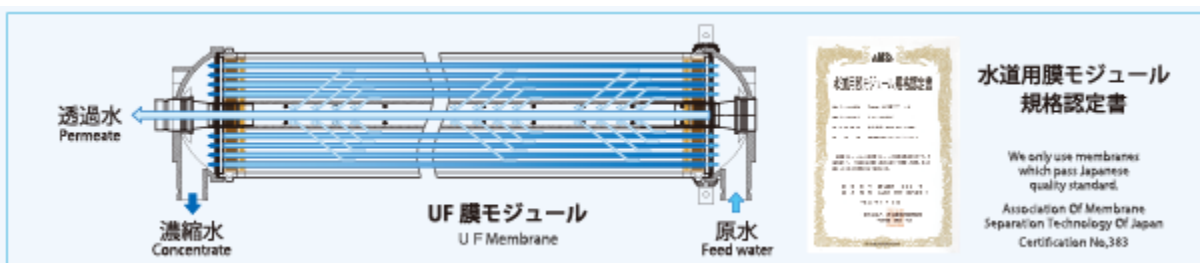
Our water treatment system is built right on the site where water treatment is needed, so that the large scale pipelining is not necessary. We can install the system from a building to a factory. In addition, this system can supply water without long pipelining to the village where public water supplying system is not installed as the interim water treatment system using the water resources on-site.



## Outline

### ■ Cutting Edge Filtering Technology with No Limitation of Water Source

By combining different treatment technologies, from ultra-purified water to industrial water, our system can produce water quality according to customer's applications and purposes. We use in our water treatment system only qualified membrane under the Japanese drinking water standard.



## Membrane process technology

### ■UF Membrane Processing Unit

We use UF (Ultra Filtration) Membrane with 0.01 micron stoma, which is the most advanced water filtering system. It removes even virus, bacteria and cryptosporidium. More than 70% of Japanese public water purification plants use this system.



### ■RO Membrane Processing Unit

RO membrane with 0.0001 micron membrane removes the salts, silica component and evaporation residues from the water. It can produce the best quality drinking water and the water supplying to machineries.

## An introductory track record

### ■Recycling Drain water from RO Membrane Unit

Shopping Mall in Ibaragi Prefecture

Pre-Filtration Tank (Removal of Iron and Manganese) + RO Membrane Unit + UF Membrane Unit 40m<sup>3</sup>/hr

This facility has two separated pipe lines, water for drinking and miscellaneous use. Thus, we recycle the drain water from RO membrane for water for miscellaneous use to cut more cost. We are planning to use this drain water from RO membrane for the heat exchangers in air conditioning units because of its fixed temperature. The utilization of groundwater is proposed for the resource of the saving-energy effect.



### ■100% Removal of Arsenic from The Source

Shopping Mall in Hokkaido Prefecture

Arsenic Removal Unit + UF Membrane Unit 18m<sup>3</sup>/hr

We had difficulty utilizing the original groundwater from this facility because it has more arsenic than Japanese drinking water standard (Less than 0.01mg/l). Yet we overcome this problem by using our special filter removes arsenic with particulate iron hydroxides. It absorbs and removes arsenic safely.



### ■ Other introduction examples

- Shopping mall ● supermarket ● department store ● hotel ● resort hotel and university
- hospital in affiliation ● general hospital ● home for the aged ● food factory
- electronic-components factory Etc.

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