

# Marine products processing wastewater treatment ( Salmon, Trout )

Our customer thought wastewater treatment as important as HACCP activity in the process of manufacture, but they had trouble with the complicated operation of the former treatment facility of a batch method.

Therefore in order to secure absolutely trusted effluent quality, they decided to introduce MBR process and retrofit the conventional facility by effectively utilizing their function. This retrofit and Kubota Membrane Co., Ltd.'s support have achieved stable and excellent performance.

Our customer was struck by the disaster of the Great East Japan Earthquake in 2011. At that time, they quickly started working as one for factory's revival. Then they resumed production 5 months later, and completed the new factory next May. KUBOTA Submerged Membrane Unit® has shown good and stable performance along revival plan.



Overview of Factory



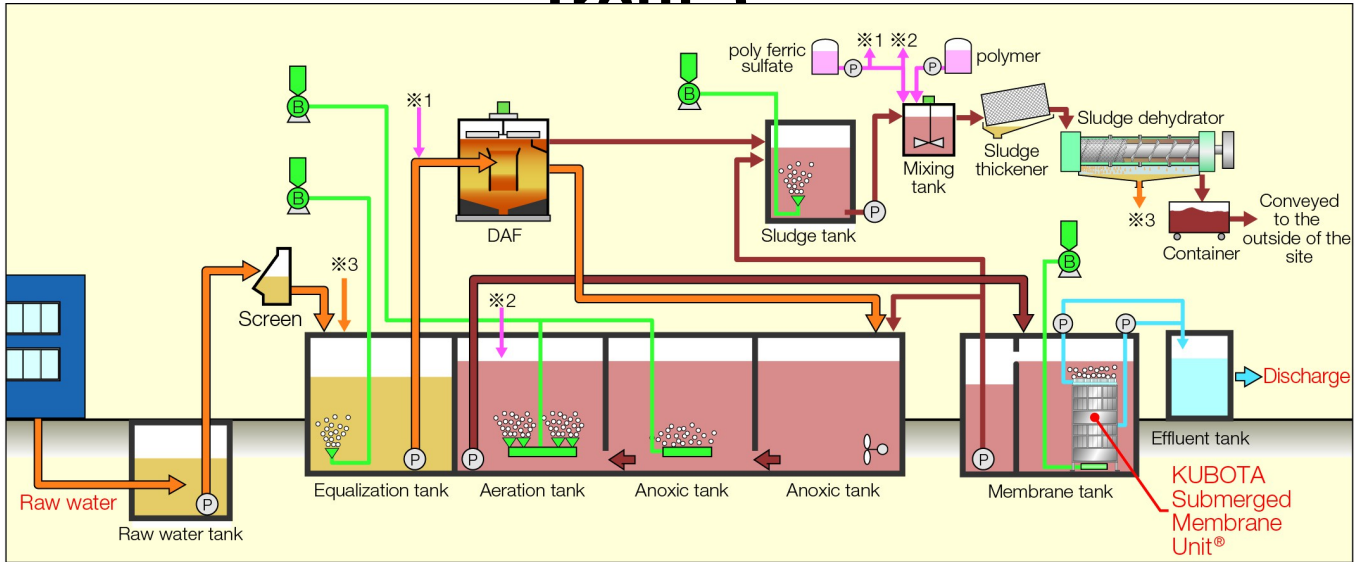
Overview of Treatment Facility  
Left : Membrane Tank  
Right : Existing Tank

## Outline of the Facility

Location	Miyagi Prefecture, Japan
Type of wastewater	Marine products processing Wastewater (Salmon, Trout)
Flow	200 m <sup>3</sup> /d
Commissioned	April 2010

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## MBR Process Flow Sheet



## Design Parameter and Actual Data

Parameter	Influent		Effluent	
	Design	Actual	Design	Actual
BOD5 (mg/L)	2,000	2,520	<120	0.7
SS (mg/L)	1,300	1,440	<150	<2.0
T-N (mg/L)	280	230	<120	17
T-P (mg/L)	50	27	<16	11
O&G (mg/L)	180	630	<30	N.D.
pH (-)	6.8~8.6	6.4	5.8~8.6	6.7

"Design" values of effluent are the regulatory limits. "Actual" values are average values.

**KUBOTA Corporation**  
Membrane Systems Dept.  
<http://kubota.co.jp/membrane>

: 1-3, Kyobashi 2-Chome,  
Chuo-ku Tokyo 104-8307, Japan  
Tel:+81(0) 3-3245-3773

**Kubota Membrane Europe Ltd.,**  
<http://www.kubota-mbr.com/>

: 3rd Floor Horatio House, No.1  
Farrier's Yard 77-85  
Fulham Palace Road  
London, W6 8JA, United Kingdom  
Tel:+44(0) 20-8741-5262

**Kubota Membrane U.S.A.  
Corporation**  
<http://www.kubota-membrane.com/>

: 11807 North Creek Parkway S, Suite  
B-109, Bothell, WA 98011, USA  
Tel:+1-425-898-2858