

Paint Wastewater

Small Footprint, Stable Discharge Quality

Wado Sangyo Co., Ltd. is the top manufacturer of middle- and large-size snow blowers in Japan. The company is meeting users' needs by developing a useful system from leading technologies with its total power including planning, R&D, design, manufacturing, construction, and after-sales service.

As one of such activities, the company has also developed its original wastewater treatment system of submerged membrane type.

Due to production increase, the company converted its existing UF membrane treatment system for electrodeposition wastewater into a Membrane Bio-Reactor (MBR) system using KUBOTA Submerged Membrane Unit™.

The company's inquiring mind brushed up the Membrane Bio-Reactor System into its original product, which reduces cost and eases maintenance. KUBOTA SMU is working also in the developed system.



Overview of Treatment Plant



Membrane Unit
(at inspection)



Raw Treated Sludge
Water Comparison

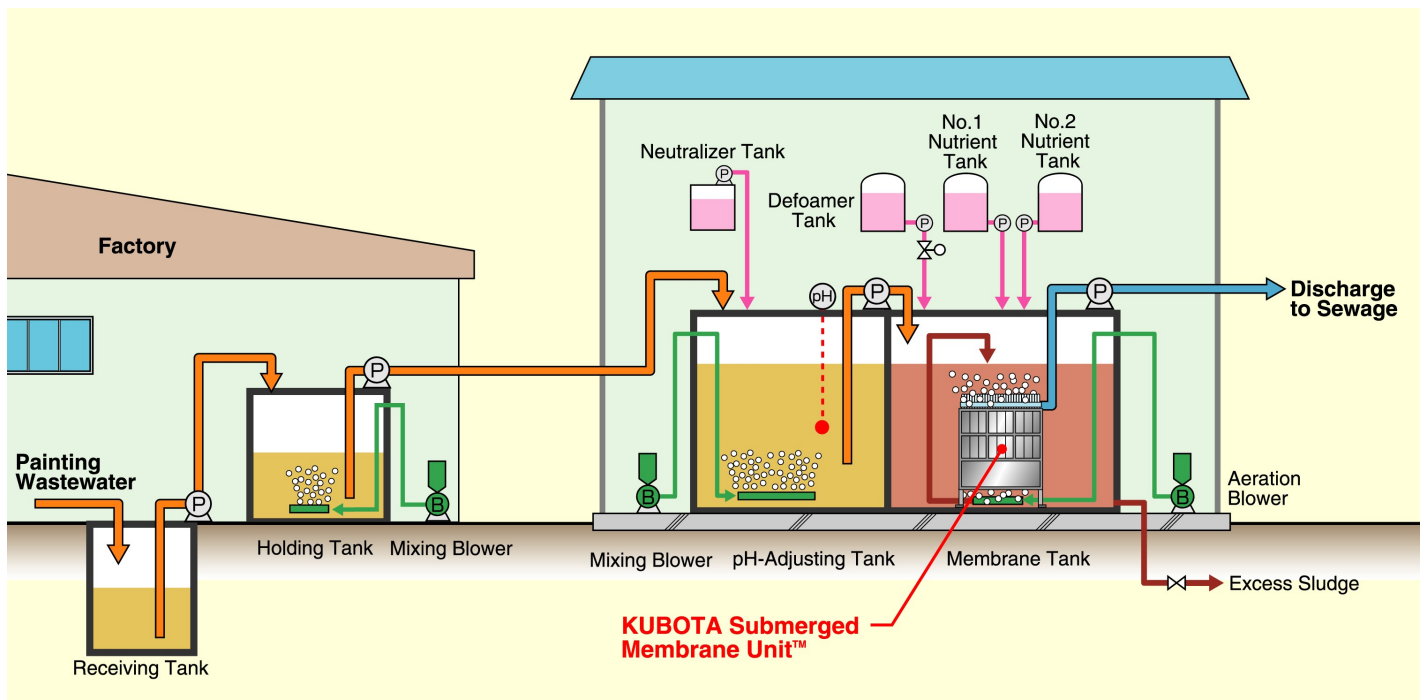
【Outline of the Facility】

Name of the facility :	Wastewater Treatment Facility of Wado Sangyo Co., Ltd
Location :	Iwate Prefecture, Japan
Type of wastewater :	Electrodeposition Wastewater (Water-soluble Paint)
Flow :	13 m ³ /d (MBR)
Commissioned :	March, 2008

Paint Wastewater

- Painting (electrodeposition coating) wastewater is once stored in a receiving tank and then pumped to the treatment plant.
- The plant consists of a pH-adjusting tank, membrane tank, and other peripheral facilities.
- The wastewater is adjusted in pH and then transferred to the Membrane Tank.
- Biological treatment by microorganisms and solid-liquid separation by KUBOTA Submerged Membrane Unit™ concurrently produce crystal clean water. Defoamer and nutrient is prepared to be fed if needed.
- Excess sludge is extracted directly from Membrane Tank.

[MBR Process Flow Sheet]



[Design Parameter and Measured Data]

Parameter	Influent		Effluent	
	Design	Measured	Design	Measured
BOD (mg/L)	600	900	< 10	4.0
COD _{Cr} (mg/L)	—	1400	—	95
COD _{Mn} (mg/L)	460	510	—	36
SS (mg/L)	—	54	< 5	< 2
pH (—)	—	6.26	5.8~8.6	6.53

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