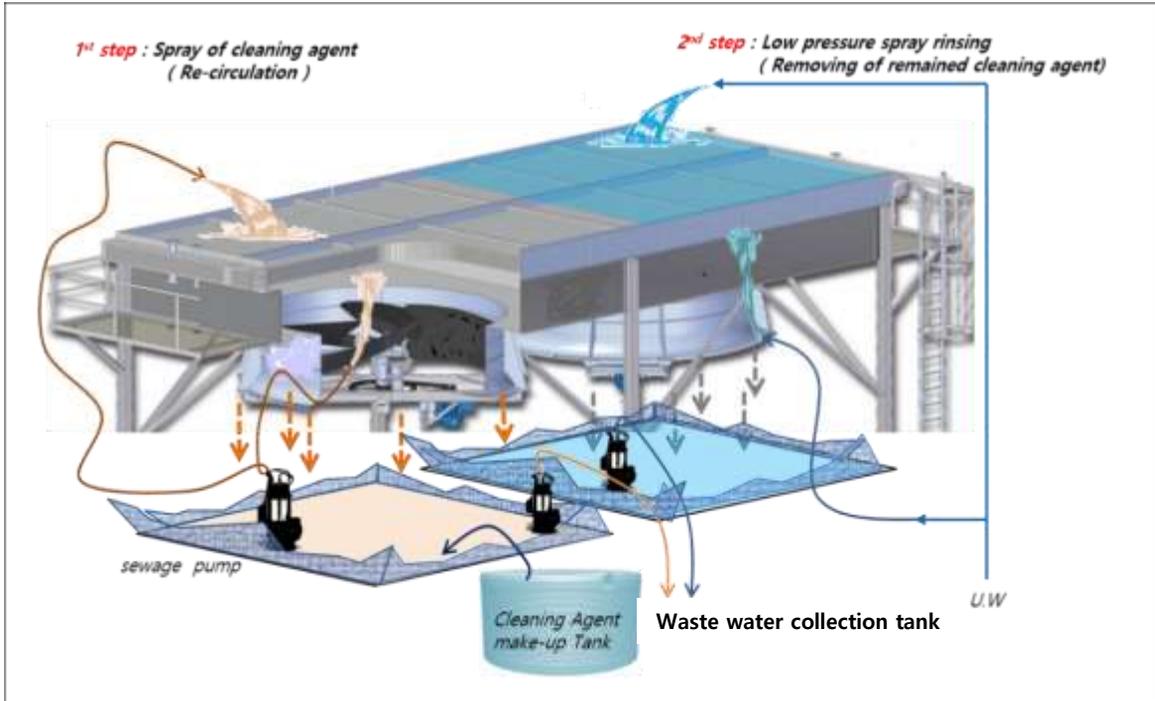


## **Contents**

- 1. Cleaning overview and how to work details**
- 2. Cleaning work schedule and implementation details**
- 3. Cleaning progress**
- 4. Cleaning operation result**

# 1. Cleaning overview and how to work details

## ❖ Overview of cleaning method



**Schematic of cleaning method with ECOS-R1**

## ❖ Details on how to clean

	How to do it	remarks
1 <sup>st</sup> Step	UW and diluted (20 ~ 25%) cleaning agent are sprayed evenly over the areas A and B to dissolve the deposits and aluminum oxide, and the cleaning liquid is made to be high in the tank installed under the fan, and the circulation cleaning is continuously performed . (Upper / lower execution) When the circulating cleaning is completed, the pollutants are disposed to the waste water treatment system.	- Before Operation Fan Motor Breaker OFF confirmation -Fin damage caution. (Using the patriarch)
2 <sup>nd</sup> Step	Utility water is pressurized to uniformly repeat the areas A and B with the fire nozzle, and the spray is evenly sprayed. The tank installed under the fan is filled with the rinsed water and is continuously discharged to the waste water collection tank (Rinse residues and residual debris are removed. Rinse is performed until clear water is released)	- Wear safety belts
3 <sup>rd</sup> Step	When the cleaning operation is completed, it enters the bottom of the fin tube and confirms the cleaning state. If the area where the cleaning is insufficient is confirmed, rework is performed.	When the rinse is complete, the pH of the effluent Make sure the neutrality is between 6.5 and 7.5.

## 2. Cleaning work schedule and implementation details

### ❖ Cleaning schedule

date	time	description	remarks
2018.05.09	10:00~12:00	Bring cleaner and cleaning equipment	
	13:00~14:00	safety education	
	14:00~15:00	Cleaning liquid dosing and cleaning equipment setting work	
	15:00~18:00	Condenser A / B area cleaning	
2016.05.10	08:00~12:00	Condenser C zone cleaning and rinse	After the cleaning operation is completed Inspection and approval of supervisor
	13:00~15:00	Protecting and maintaining condenser equipment	
	15:00~16:00	Removal and cleaning of cleaning equipment	

## 3. Cleaning progress

### ❖ Cleaning step



Cleaning agent transfer and supply



Cleaning Agent Dilution and dosing



Water pool installation for circulation cleaning



Motor protection

❖ Cleaning 작업 모습-2



상부 세정 작업



저압 및 고 유량 세정제 분사



The detergent flows down the plenum



Receive the cleaner in water pool



Bottom side cleaning work and rining

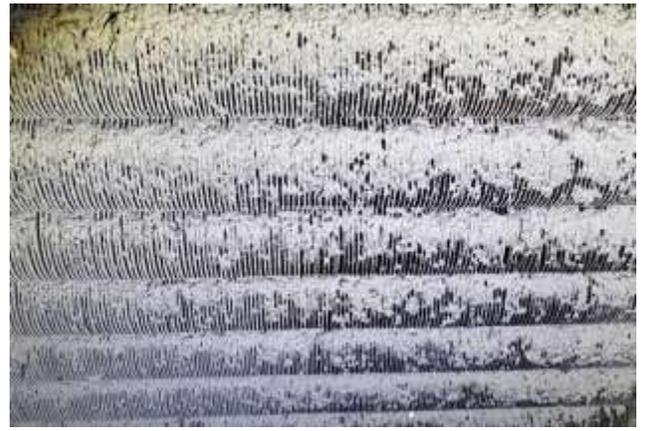


Waste water disposal to w.w.t

#### 4. Fin tube Cleaning 작업 결과 (세정 전, 후 비교)



Before Fin tube - 1



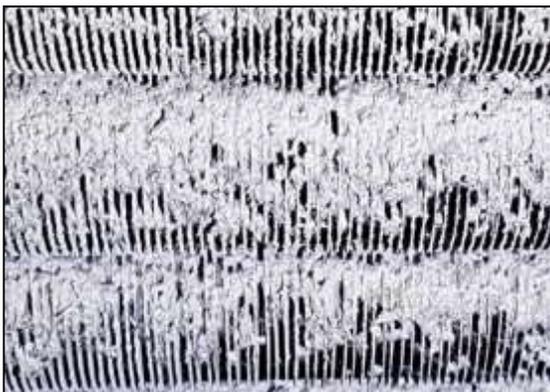
Before Fin tube - 2



After cleaning Fin tube - 1



After cleaning Fin tube - 2



Before & After cleaning the finned tubes Detail