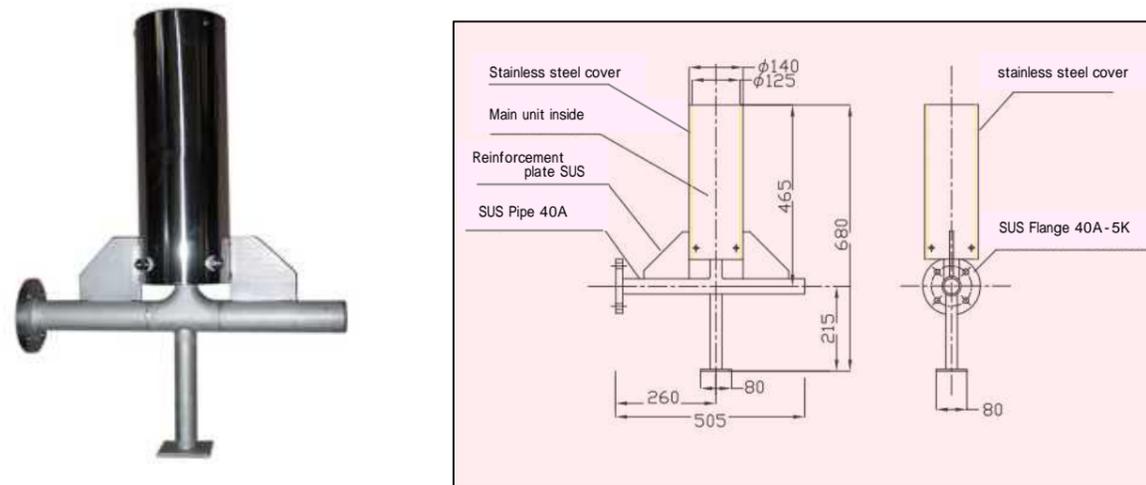


Application of AERATOR S-1

- Active sludge treatment of industrial wastewater.
- Deaeration of volatile gas in wastewater ,e.g., ammonia, hydrogen sulfide, trihalomethane ,etc.
- Installed in a reacting chamber for oxidization ,doxidization ,neutralization or reaction acceleration.
- Increase of efficiency in exiting electric facility.
- Purification of reservoir water.
- Stirring and mixing of upper and lower fluid materials of pond ,lake ,etc.
- Culture of microorganisms in water using aerator s-1 and mixer together.
- Stirring and mixing of material in brewery.
- stirring and mixing of sediments in precipitator in human waste treatment plant.



Specifications

Model	Dia.	Length	Material			Weight	Air capacity per unit			Aeration area per unit
							Stand-ard	Upper limit	Lower limit	
	mm	mm	Main unit	Skirt unit	Connector	kg	m ³ /min	m ³ /min	m ³ /min	m ²
S-1	125	680	ABS	SUS	SUS Flange	8	1.0	1.4	0.7	Approx. 6.0

POWERFUL AERATION SYSTEM **AERATOR S-1**



Processing performance improvement of BOD.COD

Contact and stirring of gas and liquid by strong aeration

Improvement of stir purification oxygen dissolution efficiency

Cancellation of stink
Reduction of waste sludge



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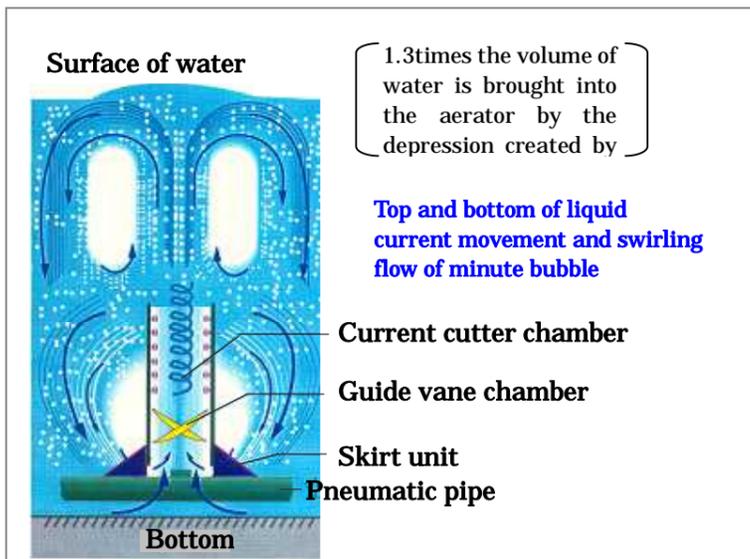
Suzuki Sangyo Co., Ltd

POWERFUL
AERATION
SYSTEM

AERATOR S-1

The AERATOR S-1 is a stationary diffusing cylinder developed especially for aeration of active sludge tank and it has on movable parts. Air blown to bottom passes through the aerator together with water. Then, the air and water are mixed with each other and changed into ultra fine bubbles by stirring them. The bubbles exchange, oxidize, deoxidize, absorb and deaerate the upper and lower fluid materials continuously and efficiently.

Liquid current distribution in tank & Structure



1. SKIRT UNIT

The skirt unit is welded to pneumatic pipe and leads the water on bottom to a main unit utilizing the Air Lift Effect.

2. GUIDE VANE CHAMBER

Mixture of water and air is controlled accurately and fed as strong spiral fluid stream into a current cutter chamber.

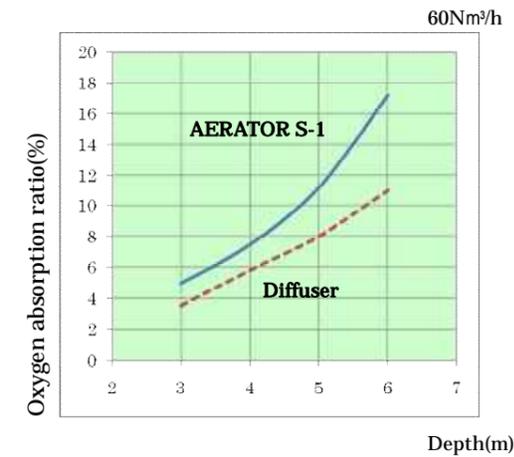
3. CURRENT CUTTER CHAMBER

The spiral fluid stream, i.e., mixture of water and air, is stirred by a current cutter of special shape and becomes into turbulent flow. It is further milted and is transformed into ultra fine bubble stream.

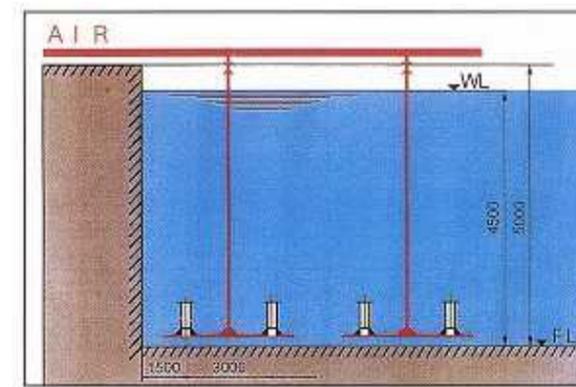
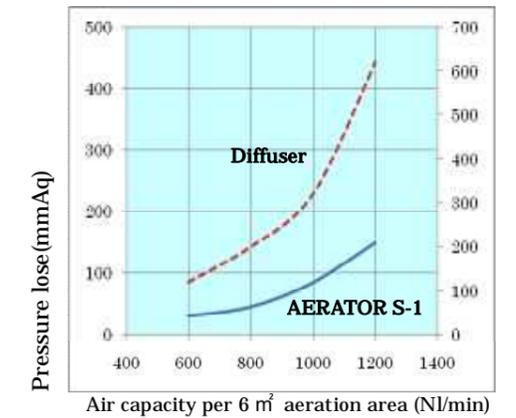
Feature of AERATOR S-1

1. Considerable reduction of electric expenses
2. High and stable oxygen absorption ratio
3. Maintenance free
 - The regular cleaning is unnecessary
4. No trouble
 - There is not stopped up
5. The sludge doesn't pile up in the tank bottom
6. The introduction construction is easy

Oxygen absorption ratio



Pressure Lose (Depth 5m)



▲ Cotton mill wastewater treatment(Japan)

Effect of introduction

System	Continuous active sludge treatment
Aeration time	8Hr
Untreated material fluid flow	1560 m³ / 日
Untreated raw material fluid	1600ppm
BOD	
Treated material fluid BOD	20ppm
Aeration tank floor area	280 m²
Depth of aeration tank	3.2m

	Before Modification	After Modification
Aeration system	190 units of diffuser	46 units of aerator S-1
Air suction capacity	45m³/min	Average 32m³/min
Number of blowers	59kw	37kw
Do in aeration tank	0.5 ~ 1.0ppm	3 ~ 4ppm
Excess sludge	70m³/month	50m³/month