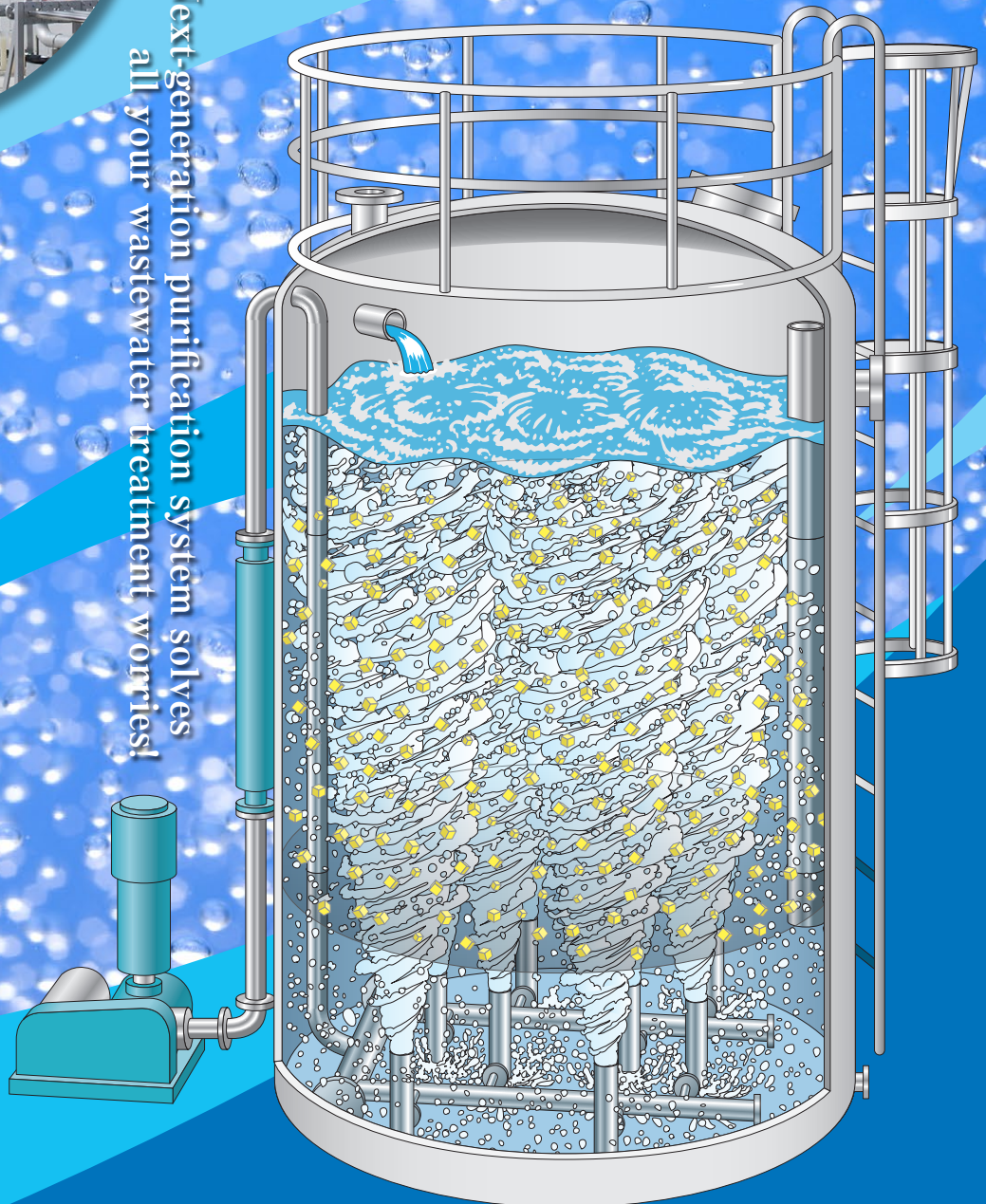


Blastertank

Wastewater purification system equipped with Aquablaster



● Next-generation purification system solves
all your wastewater treatment worries!



- Wastewater purification system equipped with Aquablaster

Aquablaster® Biological carrier agent
Blastertank

Truly effective wastewater treatment equipment has no unpleasant odor!

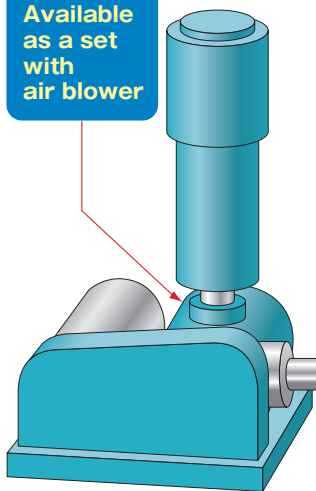
Equipped with Aquablaster



Outstanding features of Aquablaster

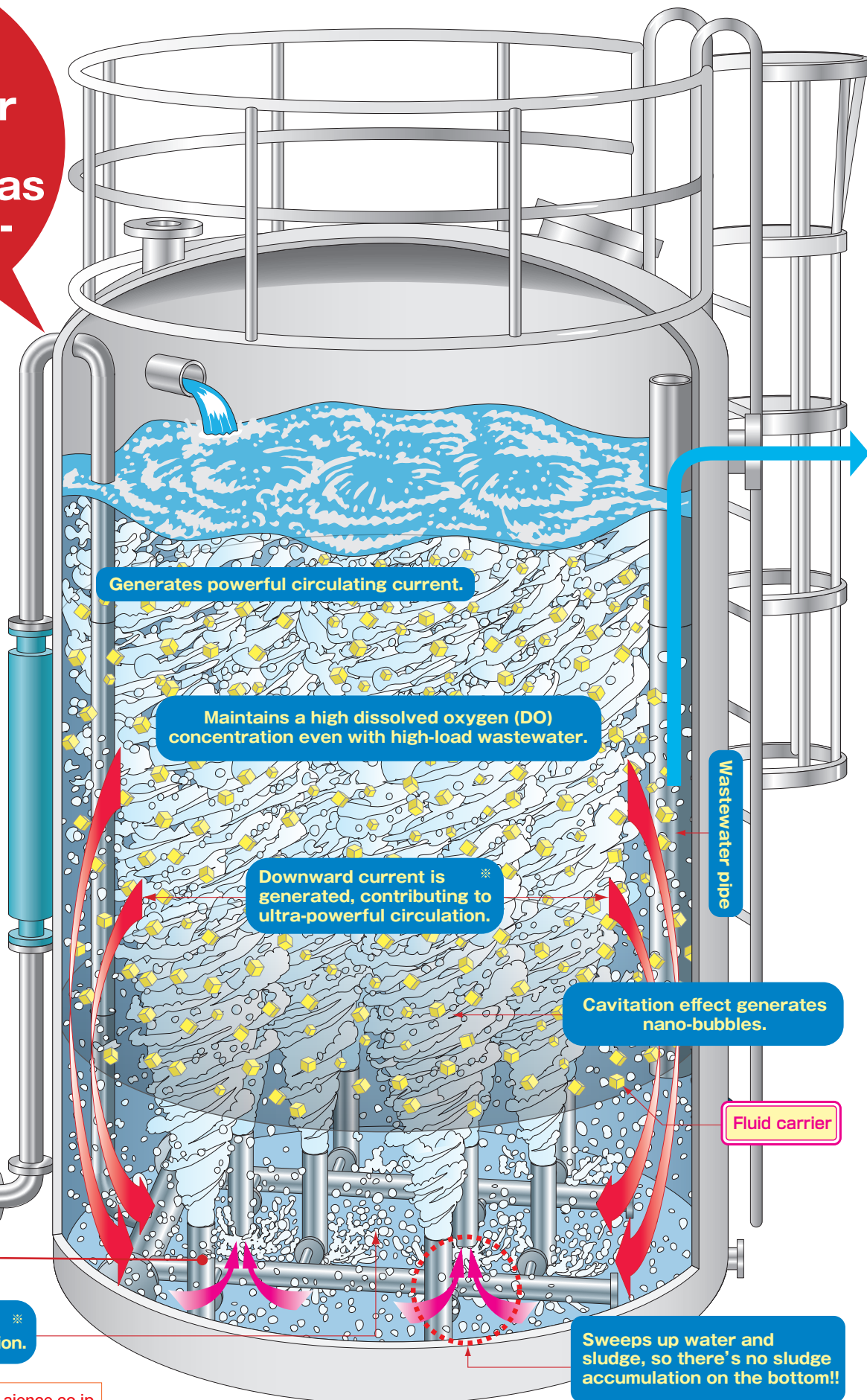
- Highly efficient oxygen-dissolution efficiency
- Airlift effect sweeps up sludge from bottom
- Outstanding performance even with high-load wastewater
- Ideal for livestock wastewater as well
- Maintenance free
- Greatly improved durability

Available as a set with air blower



※ All material is swept up, without fluid bed accumulation.

*See video on our website www.aience.co.jp



※ Treatment with biological carrier agent requires large amounts of oxygen, meaning Aquablaster is necessary.

Now even more powerful with 100% aerobic respiration and powerful convections stirring plus biological carrier agent!

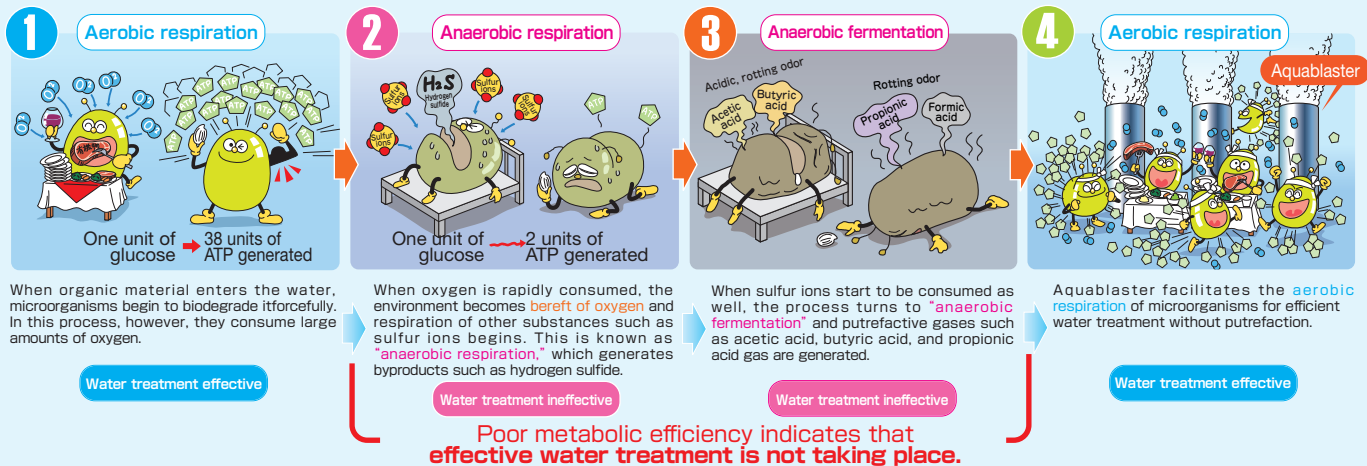
What's the secret behind superior water treatment?

By facilitating **100% aerobic-respiration metabolism of microorganisms**, Aquablaster maximizes biological breakdown capacity.

In biology terms, this is a very simple process, **but there are astonishingly few apparatuses and pieces of equipment that capitalize on this phenomenon.**

An unpleasant odor indicates that microorganisms' metabolism is weak.

[Unpleasant odors and treatment mechanism]



Outstanding performance, unthinkable with conventional water purification systems.

Aquablaster facilitates 100% aerobic respiration and powerful vertical stirring inside the tank, producing the following effects.

- ① Maximizes the degradation capacity of microorganisms, for extremely powerful breakdown of oil and other substances.
(Maximum metabolism = One unit of glucose → 38 units of ATP generated)
- ② Absolutely no generation of foul odors from hydrogen sulfide, etc.
- ③ When discharging to sewer systems, no activated sludge is used, only suspended solids below the acceptable discharge limit. No need for sludge treatment (some exceptions may apply depending on the type of wastewater).
- ④ Aquablaster sweeps up water from bottom for minimal sludge accumulation

Preliminary tests are conducted on site at your facility, determining the length of time required for treatment, and preliminary investigation (no costs borne by customer except for measuring expenses), so you can use our product with confidence.

Preliminary verification and a 15-year track record have given us a 100% success rate.

We 100% guarantee odor-free wastewater!

Used effectively at all sorts of treatment facilities.



Blaster Tank meets a wide range of needs

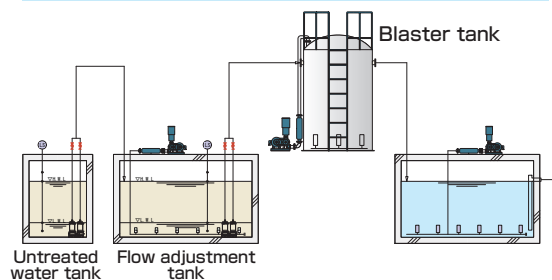
- ① Users who want to release wastewater to sewer system with no sludge (only suspended solids within acceptable discharge limit).
Extensive track record in this area
- ② Users who want to eliminate pressurized flotation unit, reduce maintenance work and scale down use of condensing agents.
- ③ Users requiring backup because existing treatment equipment has reached capacity.
- ④ Users who want to install additional water treatment tanks but have no place to install them, or other users with concerns should feel free to consult Aience.

Please conduct a thorough preliminary study when dealing with wastewater thought difficult to handle with biotreatment.

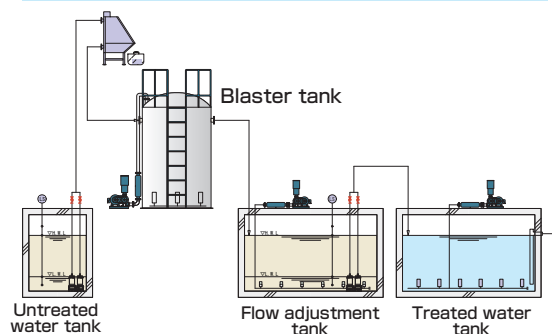
- ① **COD-overloaded wastewater**
 (where BOD: COD ration exceeds 1:2)
- ② **Inorganic wastewater**
 (treatment can be applied to prevent unpleasant odor generation and boost condensing power)

Application examples

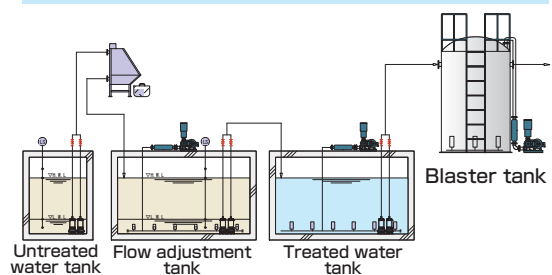
Pre-treatment replacing pressurized flotation unit



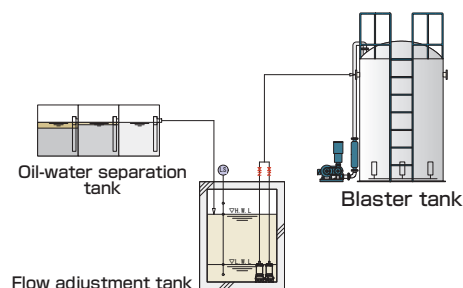
Pre-treatment of high-load wastewater

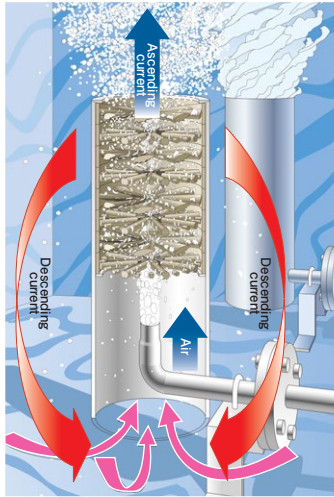


Post-treatment when water treatment has been ineffective



Treatment of wastewater containing mineral oils

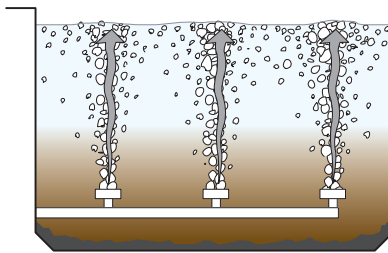




Equipped with Aquablaster, which employs nano-bubbles and powerful stirring convection for unbeatably effective purification of even the highest-sludge wastewater.

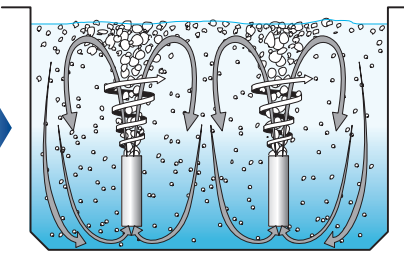
To maintain an optimum wastewater tank environment, it is very important to boost the metabolic rate of microorganisms' aerobic respiration. By applying a special class of circulating aeration to the wastewater tank, Aquablaster dissolves and purifies with maximum speed and effectiveness.

Conventional aeration system



Sludge accumulates on bottom, turning environment anaerobic.

Circulating convection-current aeration system



Oxygen is distributed throughout entire tank, preventing sludge accumulation on bottom.

Examples of wastewater treatment equipment installations

Wastewater treatment at food processing plant / bakery



Unit (mg/L)	Untreated water	Treated water	acceptable discharge limit
BOD	2000	220	200 or less
SS	3000	280	200 or less
N-Hex	400	20	30 or less

Plastic recycling plant



Unit (mg/L)	Untreated water	Treated water	Discharge to river
BOD	2000	80	100 or less
SS	2000	40	100 or less
N-Hex	150	1	5 or less

Shimadzu Corporation, Seta Works Treatment of wastewater containing mineral oils



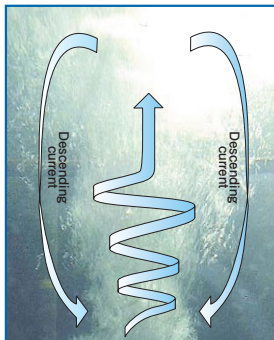
Unit (mg/L)	Untreated water	Treated water	acceptable discharge limit
BOD	1200	85	300 or less
SS	800	80	300 or less
N-Hex	120	12	30 or less

Plastic recycling plant



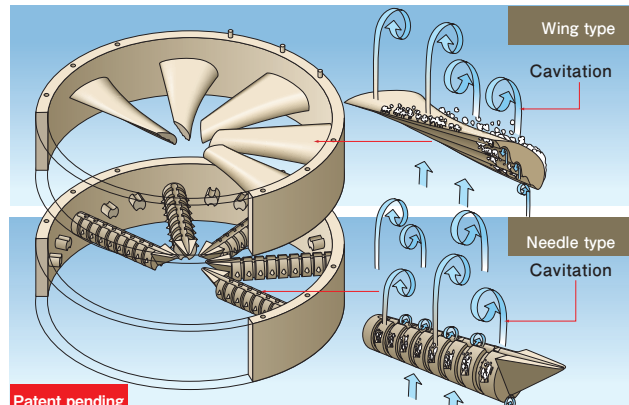
Unit (mg/L)	Untreated water	Treated water	Discharge to river
BOD	2500	90	100 or less
SS	3000	80	100 or less
N-Hex	200	1	5 or less

Aquablaster's internal protrusions with a wide variety of shapes generate cavitation effect



As shown in the photo, a powerful stream of nano-bubbles sweeps even across the bottom of the tank.

*See video on our website www.aience.co.jp



Patent pending

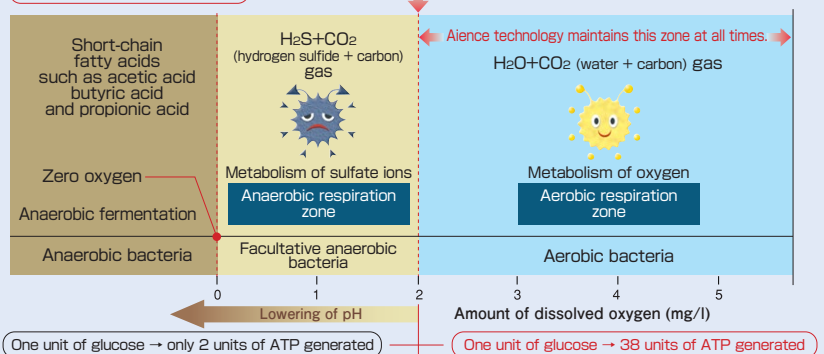
Common misconceptions!!

The important thing is not the type of microorganisms, but the microorganisms' metabolism.

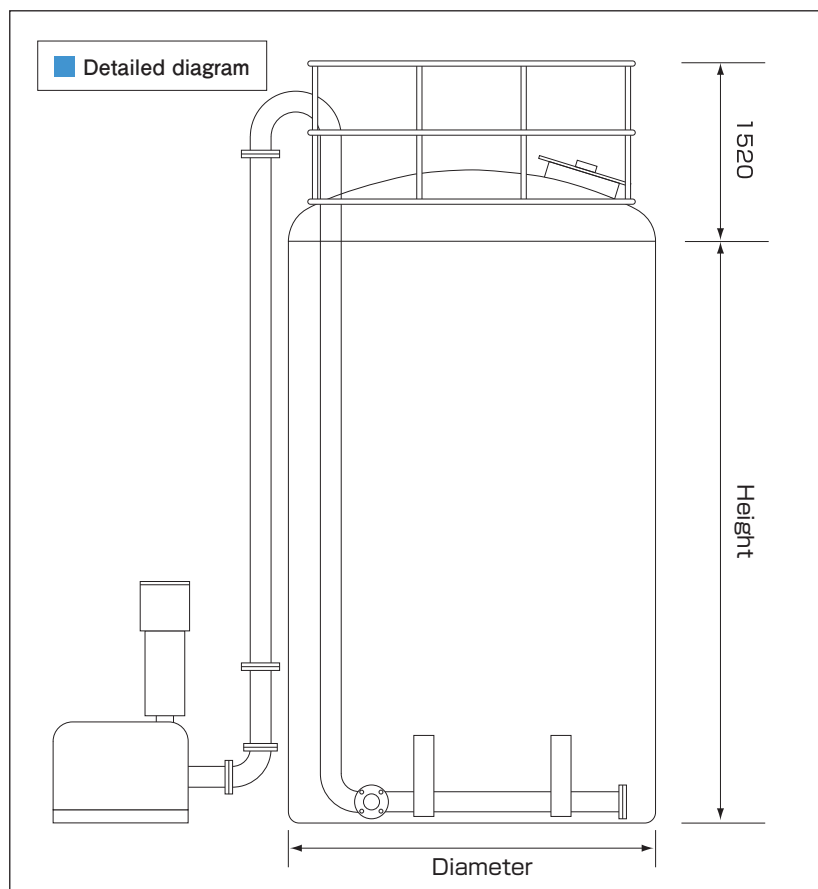
People often talk about which kinds of microorganisms are good for wastewater treatment, but in fact, no matter how powerful the dissolution capabilities of microorganisms are, these microorganisms will be unable to generate energy without sufficient oxygen. That means they won't fulfill their true potential. (See comic) Microorganisms only exhibit their true dissolution capabilities when they have sufficient oxygen for an "aerobic-respiration metabolism."

What happens when the oxygen level falls below a certain point...

Upon entering this zone, there is nearly a 20x difference in metabolic efficiency.



Blaster tank standard specifications



If you are unable to install the system aboveground, we also offer underground installation. Please inquire for details.



Specification table

	BT-5B	BT-10B	BT-20B	BT-30B	BT-40B	BT-50B
Tank capacity(m ³)	5	10	20	30	40	50
Air blower Output(kw)	3.7	5.5	11	11	15	18.5
Tank material	SUS304 · SS400 · Polyethylene · FRP					
Tank diameter(mm)	1800	2000	2400	3000	3000	3200
Tank height(mm)	2000	3200	4500	4300	5700	6750
Number of Aquablaster units	4	4	6	6	7	8

●BT-5B, 10B are equipped only with a simple ladder. ●BT-20B, 30B, 40B, 50B are equipped with ladder with protective rail, and safety fence all around perimeter. ●Dimensions are listed for reference only. ●Please be aware that designs may be modified as needed.



Plastic-drum test models are available for borrowing. Try it for yourself on-site and see the effects.

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Manufacturer



Aience Co., Ltd.

■ Kowa Edobori Bldg.3F, 1-21-7, Edobori, Nishi-ku, Osaka, 550-0002, Japan
TEL.06-6225-2323 FAX.06-6225-2552

For inquiries and service



<https://www.aience.co.jp/en/>
