

# **“Aquablaster” Replacement and Cost Reduction Cases**

# "Aquablaster" Cost Reduction Cases

"Aquablaster" reduces the cost of Wastewater Treatment, by eliminating the need for Pressurized Foltation Unit, reducing time spent on Tank Washing and Maintenance Work, etc.  
And since Pressure Loss is minimal, Power Consumption is reduced by 45% (Disc Type Diffuser ratio)

## Renovation



### Major luxury hotel

**Cost reduction of  
US\$190,000.00 per year**

By introducing Aquablaster into existing equipment, we eliminated the need for pressurized flotation unit.

Processing results (Unit: mg/L)

**B O D : 800 → less than 120**  
**S S : 600 → less than 80**  
**N-hex : 150 → less than 10**



### Major bread factory

**Cost reduction of  
US\$80,000.00 per year**

With the introduction of AIS, oil and sludge have vanished and the plant has been operating without trouble to this day.

Processing results (Unit: mg/L)

**B O D : 3,000 → less than 600**  
**S S : 1,600 → less than 600**  
**N-hex : 500 → less than 30**

## Newly established



### Major corporation's boxed lunch factory

**Cost reduction of  
US\$120,000.00 per year**

With pressurized flotation units removed and processing carried out with Aquablaster alone, water can be discharged to sewers.

Processing results (Unit: mg/L)

**B O D : 2,500 → less than 400**  
**S S : 1,000 → less than 400**  
**N-hex : 350 → less than 40**



### Major supermarket / Central kitchen

**Cost reduction of  
US\$150,000.00 per year**

The number of tanks was cut in half and AIS installed. Sludge has vanished, and the system was installed in a new factory as well.

Processing results (Unit: mg/L)

**B O D : 1,000 → less than 200**  
**S S : 800 → less than 200**  
**N-hex : 100 → less than 30**

\*AIS = Aquablaster

## Cases of “Aquablaster” Installations

Site	Problematic issue	Type	Result of introducing Aquablaster	Cost reduction
Major luxury hotel	Troubles with hydrogen sulfide and processing failure.	Renovation	Hydrogen sulfide was eliminated, and it was found that with AIS alone could bring waste in line with wastewater discharge standards. There was no more need for pressurized flotation units or sludge discharge. As a result, two full-time night maintenance personnel were rendered redundant.	19 million yen / year
Ultra-luxury hotel	Hydrogen sulfide was flowing into guest rooms and restaurants.	Renovation	Hydrogen sulfide was eliminated, and sewer surcharge fees paid to local governments due to poor processing were reduced to zero.	15 million yen / year
Shimadzu Corporation	Wanted to stabilize kitchen wastewater treatment and eliminate industrial waste in the form of mineral oil-containing water.	New installation	Succeeded in decomposing mineral oil, which previously had to be processed as industrial waste, as well as kitchen wastewater. (See the company's 2006 environmental report, page 5)	No comparison target
Major corporation's boxed lunch factory	Pressurized flotation device caused stench (leading to complaints from neighbors), and sludge processing costs were high.	New installation	Pressurized flotation device eliminated, for totally aerobic treatment that does not generate bad smells. As a result, sewer surcharge fees were also reduced.	12 million yen / year
Major bread factory	A major company's processing facilities completely collapsed.	Renovation	A facility installed by a major company received a local government directive to improve due to its poor processing. An Aquablaster system was added to the existing 60-ton water tank, and with a blaster tank installed in the latter stage, approved wastewater discharge levels were achieved. Severe putrefaction odors were also eliminated, and floating oils and fats caught by the grease trap in the preceding stage were also dissolved in the treatment tank.	8 million yen / year
Major supermarket's central kitchen	A major water treatment company's equipment was not functioning, and there was an improvement order from the local government.	Renovation	Existing water tank was halved and divided into six tanks with the AIS installed. As a result, sludge generation was eliminated, and the maintenance team went from two persons to zero. Aience guarantees 24-hour aeration, but it is used for 16-hour aeration at this site. The system's performance was evaluated highly, and a special order was given for it to be introduced at a second new factory.	15 million yen / year
Shimanaka Co., Ltd (Chicken processing plant)	To establish a new factory, a wastewater treatment facility was needed.	Renovation	The client was uneasy after being told by one of our major competitors that elimination of SS (suspended solids) was impossible, but felt confident introducing the system after seeing the wastewater treatment performance at the above-mentioned central kitchen. As a result, no sludge at all was generated for a year and a half, and BOD / SS are in the double digits and N-hex in the single digits.	No comparison target 12 million yen / year when compared with use of pressured flotation device