



IGADEN CO., LTD.

**Livestock Wastewater Treatment System**  
**Dairy Wastewater Treatment System**

As environmental pollution escalates, water purification technologies that emphasize global environment conservation while seeking coexistence with the natural environment and a recycling-based society are desired. We offer a chemical-free environmental contaminant elimination system that uses an electro-physicochemical reaction.

Our system has been adopted in the “Kasumigaura water purification project” (a project for developing technologies to purify eutrophicated lakes by the Ministry of Education, Culture, Sports, Science, and Technology), “Development of a purification system for hard-to-process wastewater such as wastewater from dairy parlors” (by the Ministry of Economy, Trade, and Industry), and the “Purification project for dam lakes” (by the Ministry of Land, Infrastructure, Transport, and Tourism), receiving recognition for its efficient water purification performance.

**Act on the Appropriate Treatment and Promotion of Utilization of Livestock Manure**

**Act on the Appropriate Treatment and Promotion of Utilization of Livestock Manure** is a law that regulates proper treatment of livestock waste, effective November 2004.

Today laws concerning environmental issues surrounding dairy farms and the livestock industry are being made stricter. Environmental action is urgently desired.

We suggest installation of a wastewater treatment system that purifies wastewater, controls production of odor, and decolors wastewater.

## Environmental Issues Facing Dairy Farmers and the Livestock Industry

1. Treatment of Manure: Breakout of odor, harmful insects, and E coli. Manure may flow out from lagoons to rivers during a torrential rain.
2. Treatment of Parlor Wastewater: Pipelines for transporting milk, milkers, bulk tank washing water, milking platform washing water, and discarded milk. These contain chemicals and manure.
3. Biogas Plant: Treatment of digestive fluids after treatment of methane gas fermentation. Dense ammonia, nitrogen, and odor.

The above issues may cause eutrophication of lakes and pollution of soil and underground water. To prevent these problems, we suggest the installation of a wastewater treatment system.



## Purification Effect of a Dairy / Livestock Wastewater Treatment System

- Purifies wastewater, controls breakout of odor, and decolors.
- Separates SS and phosphorus in the wastewater as well as BOD, COD, nitrogen, and ammonia.

## Consumables / Inspection and Maintenance

- Inspection and Maintenance: The system operates automatically, but periodic inspections are necessary.
- Consumables: The consumable electrode plates need to be replaced once every six months or a year.

## Amount of Treatment and System Pricing

- Installation Price: We design the system based on the water quality conditions for the installation site. We will provide you with an estimate. (An estimate requires a wastewater purification test and confirmation of purification effect based on the water quality data.)
- Amount of Treatment: Several t/day to 50 t/day

## Example



Parlor wastewater treatment system  
A compact all-in-one treatment tank, conserving space

## Before and After the Treatment



Cow manure, antiseptic solution, milking parlor:  
Mixed wastewater treatment

## Wastewater Treatment: Comparison Data

Category	Sample	Item	Before Treatment	After Treatment	Elimination Rate (%)
Dairy/ Livestock Wastewater Treatment	Pigs	Total nitrogen	1,700	130	92.4
		Total phosphorus	87	2.1	97.6
	Cows	COD	22,800	154	99.3
		Parlor Wastewater	COD	670	22
	BOD		500	11	97.8
	SS		410	6.7	98.3
	T-N		44	1.6	96.3
	T-P		29	4.3	85.1
	Digestive Fluids from Methane Fermentation	COD	4,100	480	88.2
		BOD	3,400	250	92.6
SS		57,400	30	99.9	
T-N		3,000	120	96	
NH4-N		2,500	< 0.04	100	
Bacteria	Results of Joint Verification Study with Advanced Industrial Science and Technology	Legionella	460,000	0	100.0
		Staphylococcus aureus	47,000	0	100.0
		Salmonella	460,000	0	100.0
		E. coli 57	98,000	0	100.0

Unit: mg/L (number/mg for bacteria)

Wastewater treatment data differs depending on water quality. This data does not guarantee a certain rate of elimination.

### ■ Manufactured and Distributed by:

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### ■ Dealership: