

Rotating Biological Contactor (AT-BC system)



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- ◆ AT-BC System
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About Bachilu Techno Corporation

- Name : Bachilu Techno Corporation (BTC in short)
- Location : Tokyo, Japan
- Service : Wastewater plant design, construction, operation and maintenance, selling machines/equipment/chemicals
- Main product of BTC : AT-BC System (Rotating Biological Contactor)*
 - *AT-BC System is explained in later slides.
- Businesses Overseas : South Korea, and China

Rotating Biological Contactor



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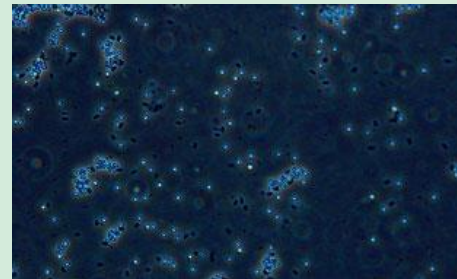
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What is the AT-BC System?

- ◆ AT-BC system is one of the advanced wastewater treatment system. It was developed integrating and evolving activated sludge process and rotating biological contactor process.
- ◆ Contactor media in the AT-BC are reticulated structure (meshed), they hold high volume of Bacillus spp on the surface. Due to the high oxygen supply, it enables effective removal of BOD and Nitrogen.

About Bacillus spp

Bacillus is a common soil bacterium, and can be found everywhere around us. By putting and growing Bacillus in the aeration tank, they strongly remove COD, Oil & Grease, Nitrogen, etc. as well as BOD. Bacillus is coexisting with conventional activated sludge bacteria in the aeration tank, and will demonstrate outstanding functions and effects.



【Bacillus】

Rotating Biological Contactor



Features of the System

1. Amazing Performance
 - ⇒ Remove 50% of BOD and 70% of Nitrogen
 - ⇒ Reduce load for aeration basins
 - ⇒ Less aeration basins required in the entire process
2. Energy Saving
 - ⇒ Reduce 30 ~ 50% of power consumption
3. Small Foot-Print
 - ⇒ The Contactor can be put on existing basins
 - ⇒ Reduce 20 ~ 30 % of aeration basins
4. Deodorizing Effect
 - ⇒ Bacillus absorbs and dissolves malodorous substances
5. Less Excess Sludge
 - ⇒ Reduce 30% of excess sludge
6. Reuse of Treated Excess Sludge
 - ⇒ Reduce 30% of excess sludge
7. Long-Life Design
 - ⇒ Life expectancy of 10 years



Project History (Year 2000 ~ 2022)

- ◆ Japan :
 - Over 130 locations (Mainly Food Factory)
 - Over 250 AT-BC System is installed

- ◆ South Korea :
 - Over 30 locations (Mainly Food Factory)
 - Over 100 AT-BC System is installed

- ◆ China :
 - Over 120 locations (Mainly Sewage Treatment Plant)
 - Over 1,500 AT-BC System is installed

Recent Project References

Project at	Chicken Meat Processing Factory (Kumamoto, Japan)	
Discharged to	River	
Process	AT-BC System + Bacillus	
Capacity	900,000 Litres/Day	
Parameter	Inflow	Discharged
BOD (mg/L)	2,200	8.2
T-N (mg/L)	170	26
T-P (mg/L)	25	0.06

Project at	Pickled Veggie Factory (Aichi, Japan)	
Discharged to	River	
Process	AT-BC System + Bacillus	
Capacity	180,000 Litres/Day	
Parameter	Inflow	Discharged
BOD (mg/L)	1,010	4.5
T-N (mg/L)	62	2.8
T-P (mg/L)	9	0.2

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Outline of the Survey

◆ Survey Title

SDGs Business Verification Survey with the Private Sector for Upgrading of Sewerage Treatment Facility Using Rotating Fiber Unit (AT-BC System)

◆ Site of the Survey

K.R Puram STP, owned by Bangalore Water Supply and Sewerage Board (BWSSB)

◆ Organization

Funding Agency : Japan International Cooperation Agency (JICA)

Project Proposer / Carrier : Bachilu Techno Corporation (BTC)

External Consultant : NJS Co. Ltd. / NJS Engineers India Pvt. Ltd. (NJSEI)

◆ Project Purpose

Contribute to the development of water treatment technologies that achieve stricter discharge standards (NGT guidelines) and lower Life Cycle Cost in metropolitan India to improve water and solve environmental issues.

Future Activities and Business Plan

Upcoming Meetings in India

- ◆ On-site explanatory meetings for counterparts and local maintenance managers:
 - November 2023
 - February 2024
 - *Details shall be announced near the time
- ◆ Pre-transfer operation explanatory meetings:
 - May/June 2024
 - *Details shall be announced near the time

Thank you

