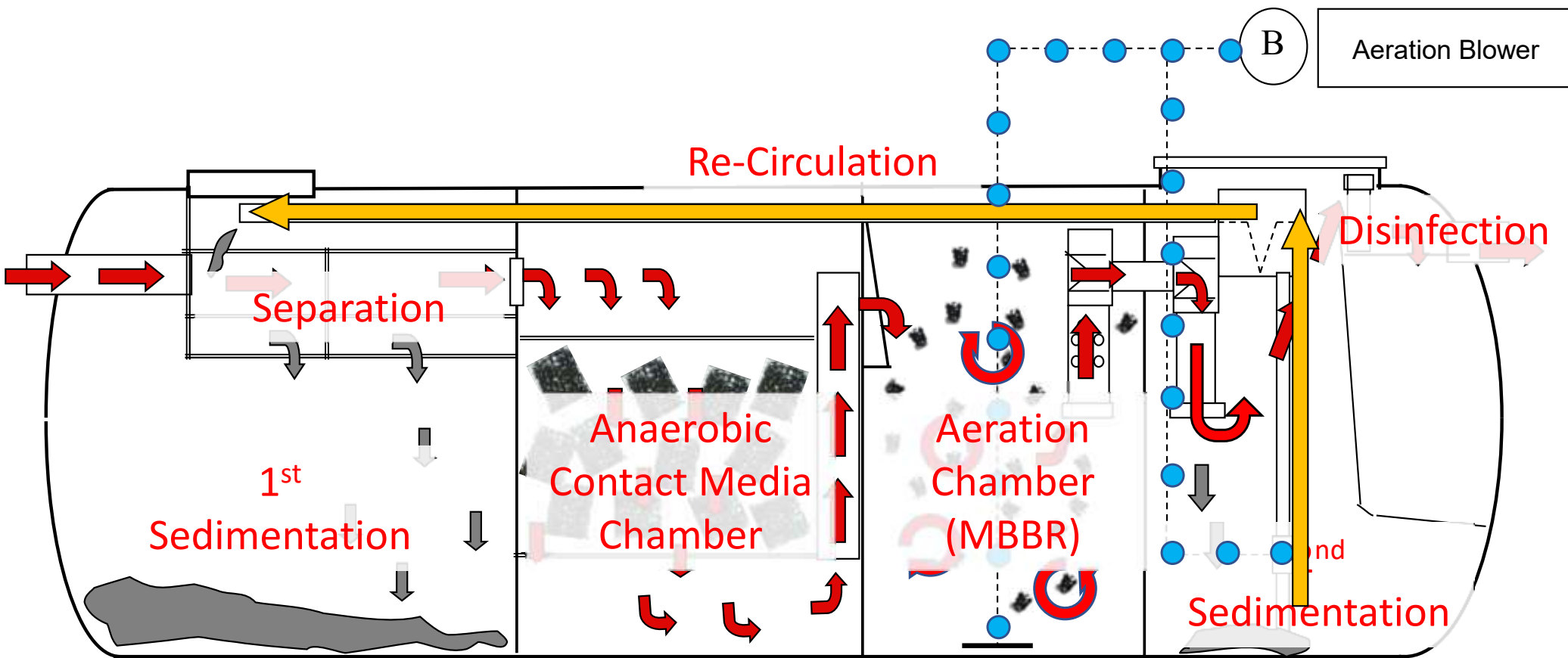


Technical explanation for  
Johkasou-STP

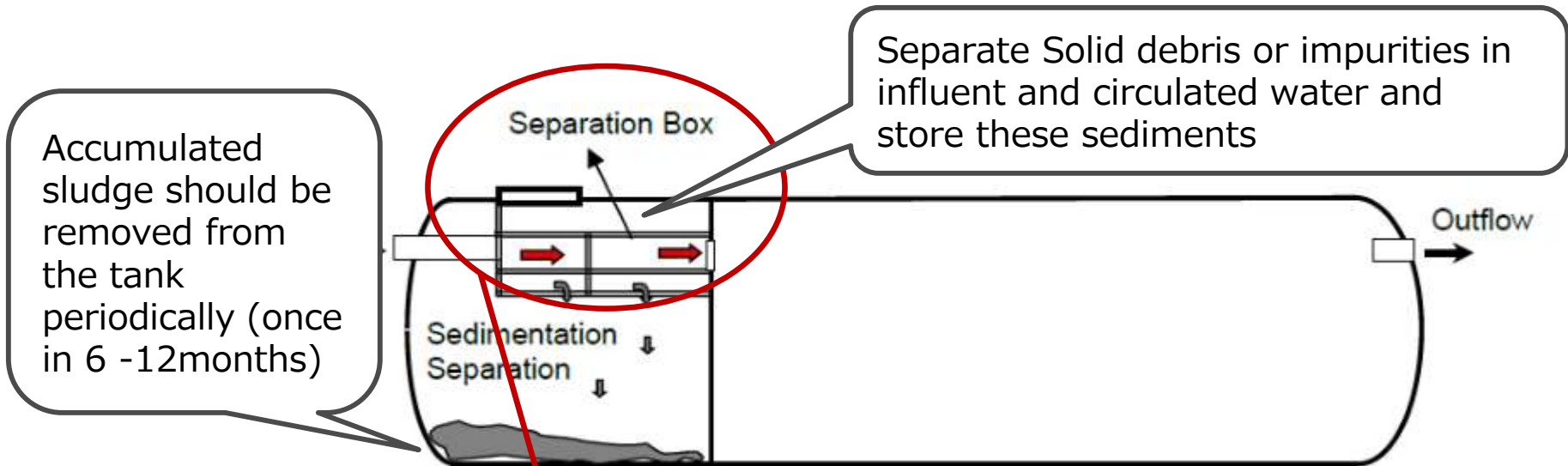
# Image of inside & function of each chamber

- By gravity flow & only small blower air, always water flow inside Johkasou, and treat again and again



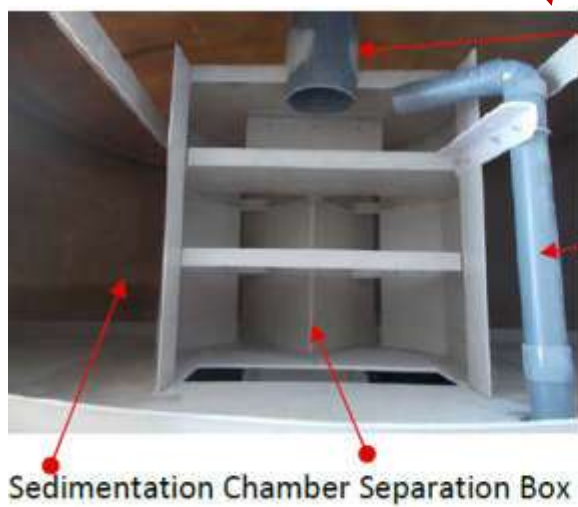
# 1<sup>st</sup> Chamber\_Separation & 1<sup>st</sup> Sedimentation - RT: 3 to 4 hrs

- Separating solid waste and liquid waste based on their gravity



Accumulated sludge should be removed from the tank periodically (once in 6 -12months)

Separate Solid debris or impurities in influent and circulated water and store these sediments



Inlet / Influent

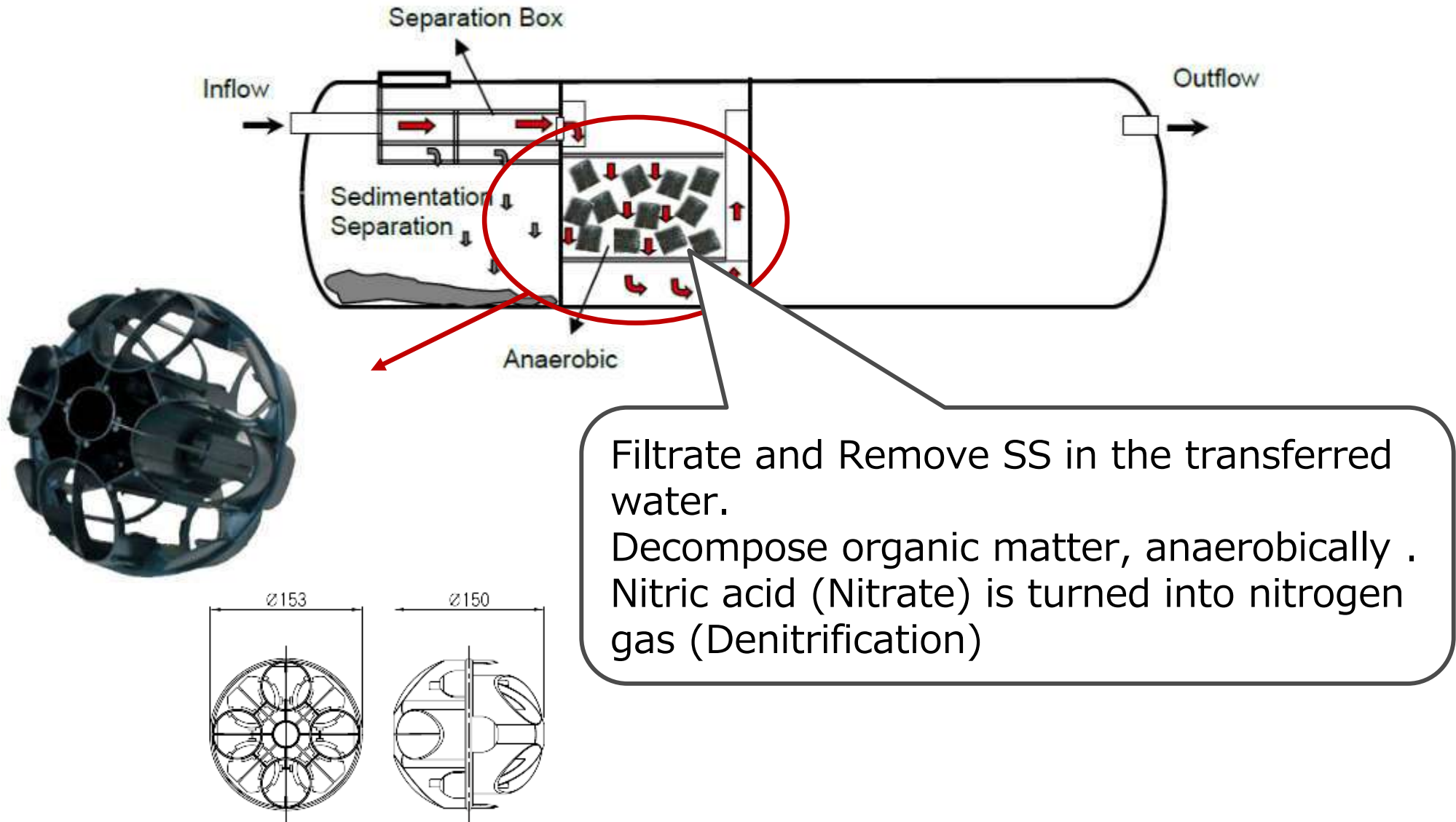
Circulation Pipe

SS in the influent is separated. Prevent agitation of exceeded sludge sediment.



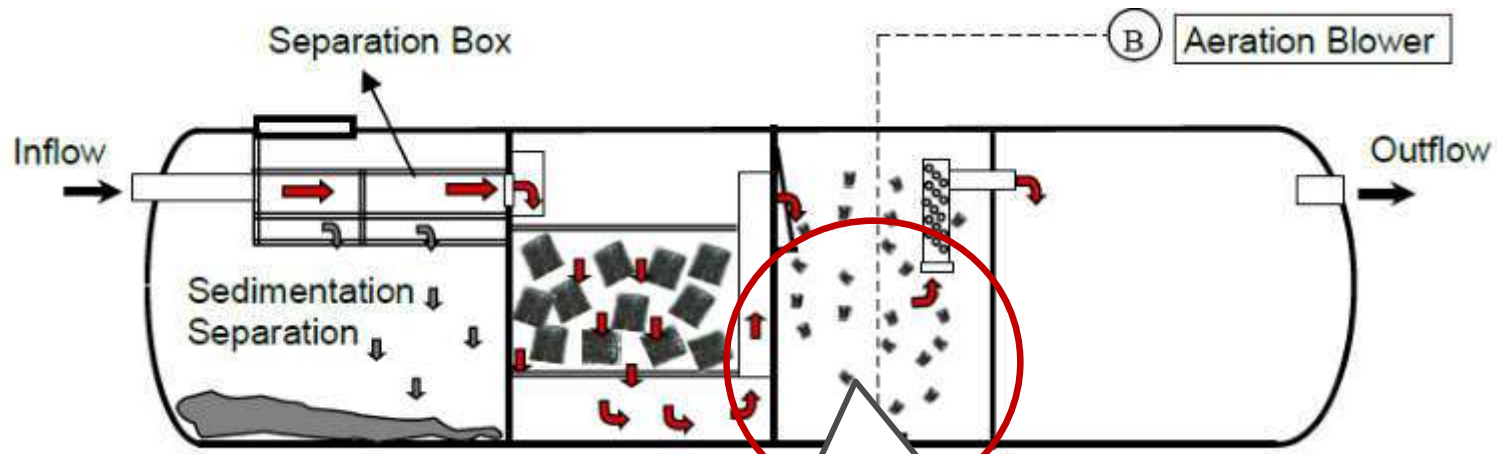
## 2<sup>nd</sup> Chamber\_ Anaerobic Contact Media Chamber RT: 5.5 to 7.3 hrs

- Anaerobic media is the place where microorganism is growing up to decompose organic material contained in domestic waste water



# 3<sup>rd</sup> Chamber\_ Aeration Chamber: MBBR RT: 6 to 8 hrs

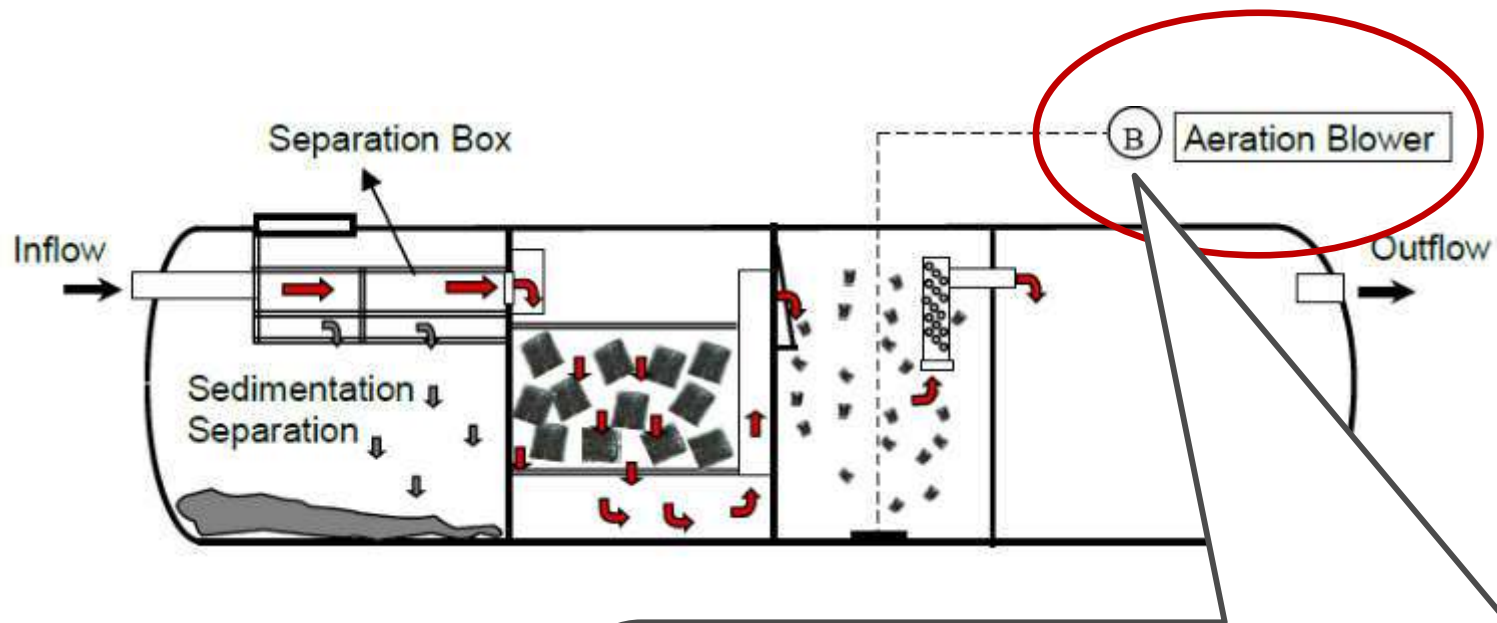
- Moving bed chamber filled by Moving Bed Media that move by blower aeration  
This Chamber fill this up with 40-50% of the volume



Activity of Microorganisms attached to the special moving bed reduces BOD aerobically.  
 $\text{NH}_4\text{-N} \rightarrow \text{NO}_x\text{-N}$

# Unique Design of Air Blowers

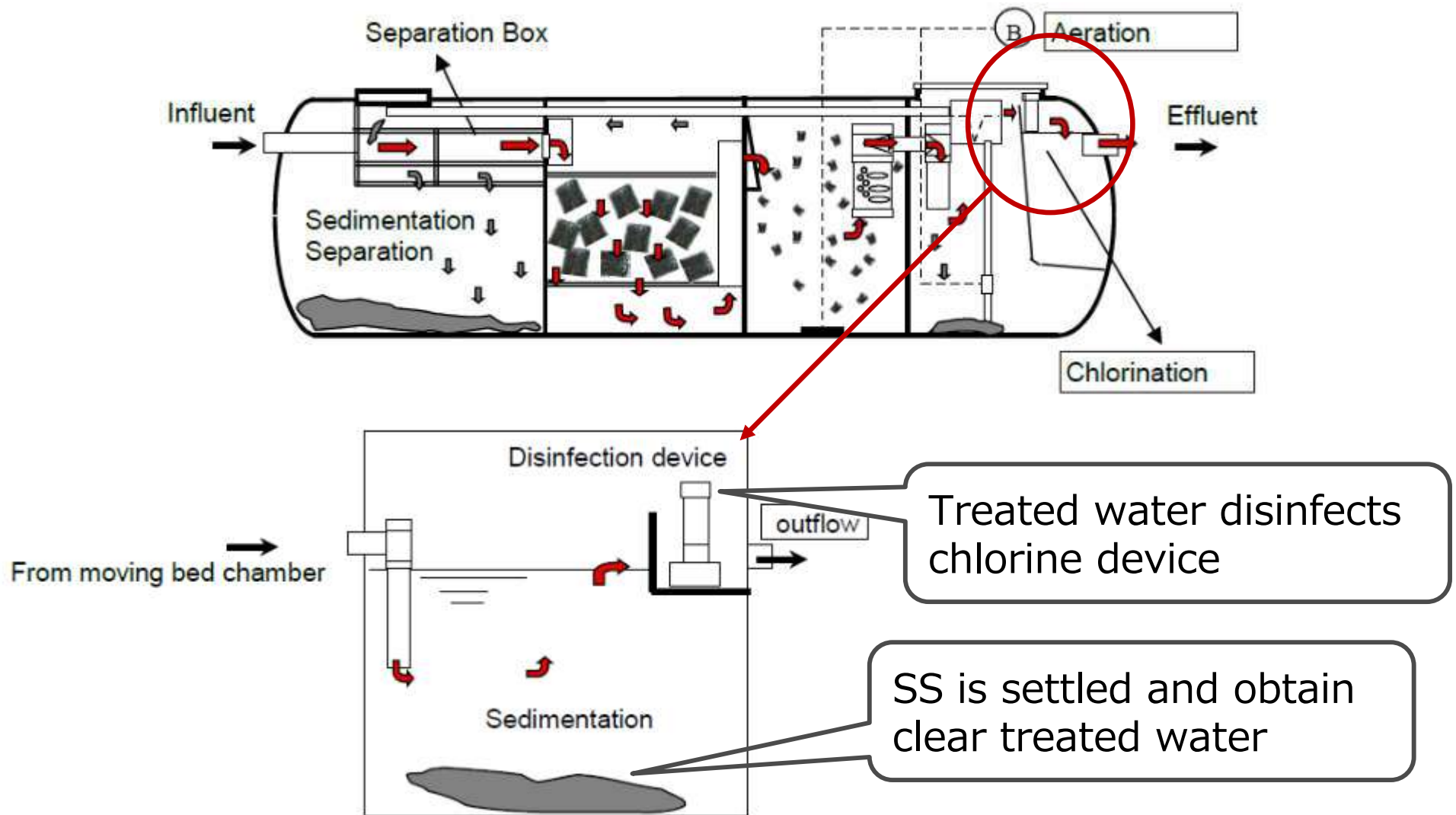
- Air Blower unique features are



1. Magnetic diaphragm operated Blower
2. Noise level < 48 DB
3. Less space is require
4. Single phase connection
5. Maintenance free only filters need to clean once in a month.

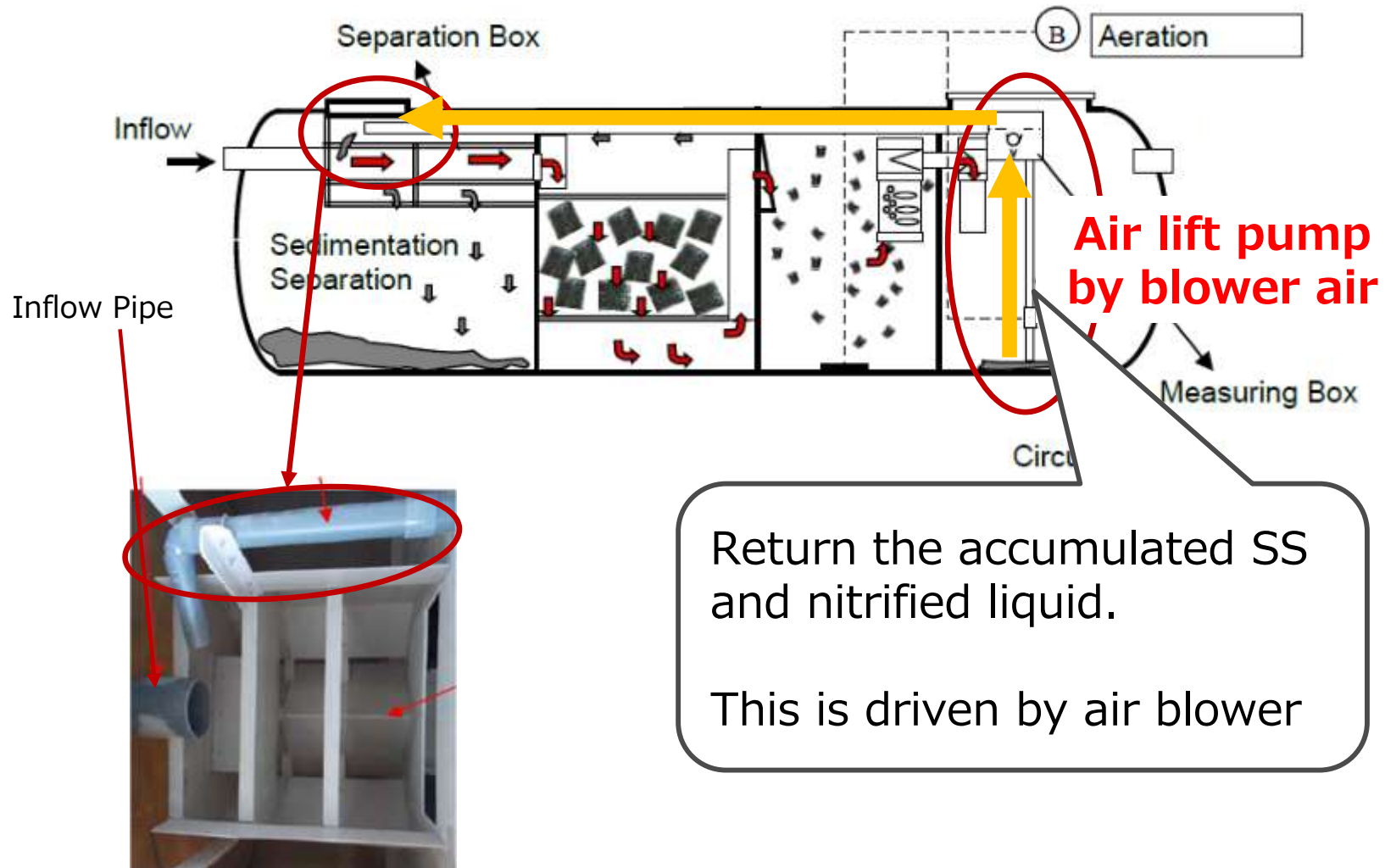
# 4<sup>th</sup> Chamber\_ 2<sup>nd</sup> Sedimentation & Disinfection RT: 2 to 2.7 hrs

- Disinfectant as a sterilization agent pathogenic microorganisms in the treated water before discharged into the environment



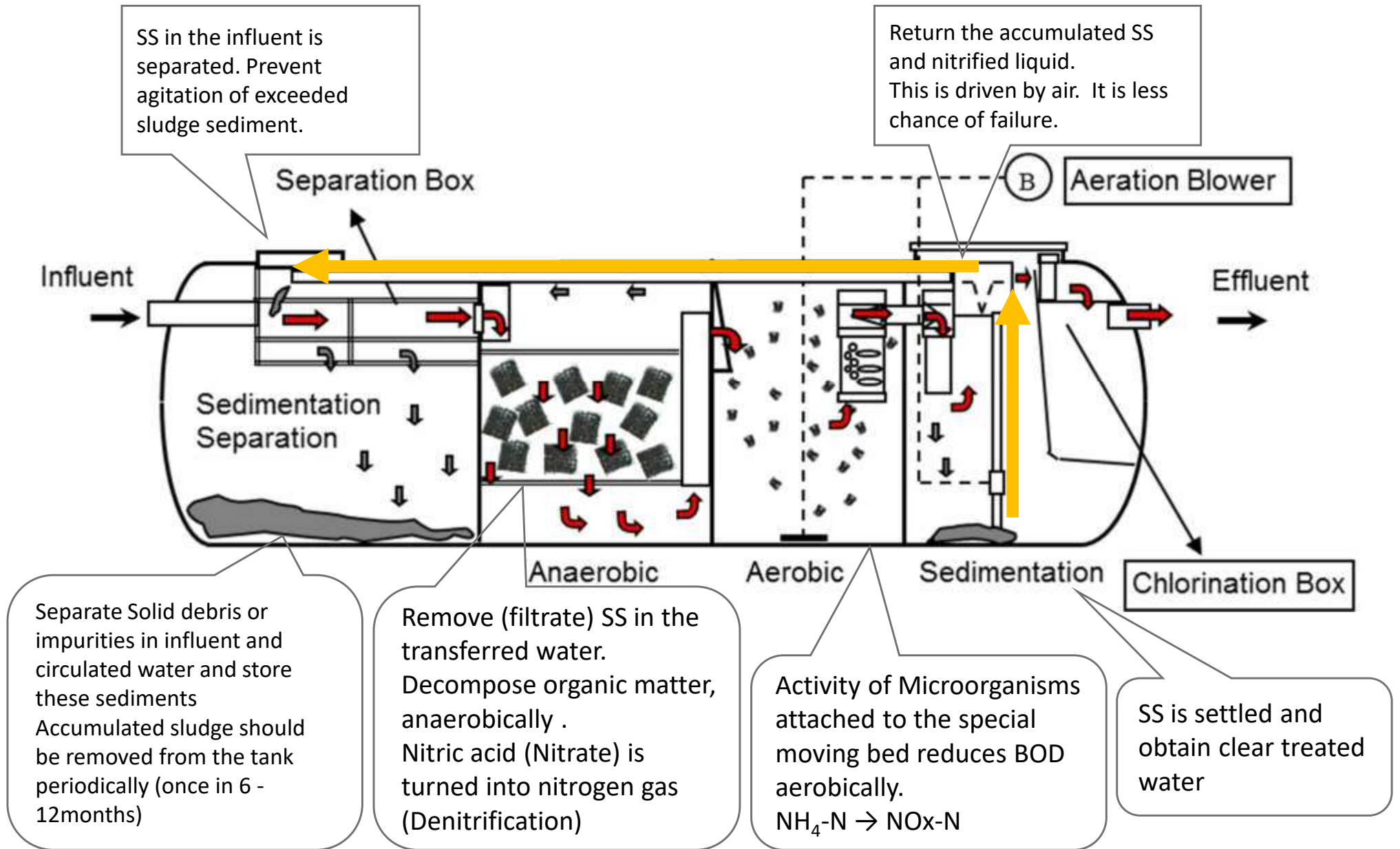
# Most important function\_ Re-Circulation system

- This part is Sedimentation and Circulation Chamber for re-treatment those water  
Water treat again & again. And go to 2<sup>nd</sup> Anaerobic for De-nitrification.



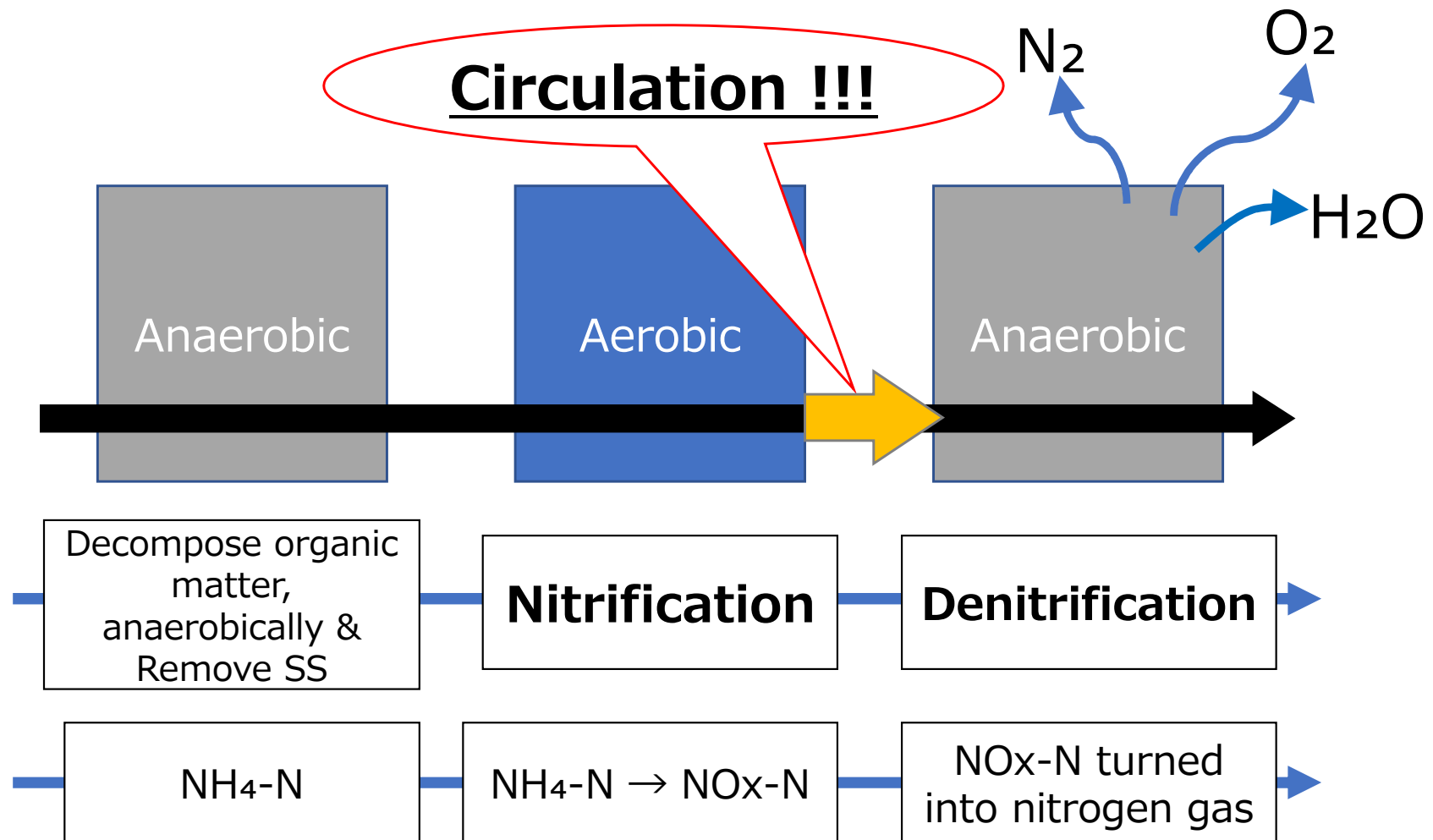


# Image of inside & function of each chamber



# Key point for the Treatment

- Key point for the treatment is to react 'Nitrification' and 'De-nitrification' **continuously in succession**



# Comparison table\_ by products

- Compare than house use treatment system, Johkasou is compact and high performance of treatment

Image

For

Process

Treatment  
performance

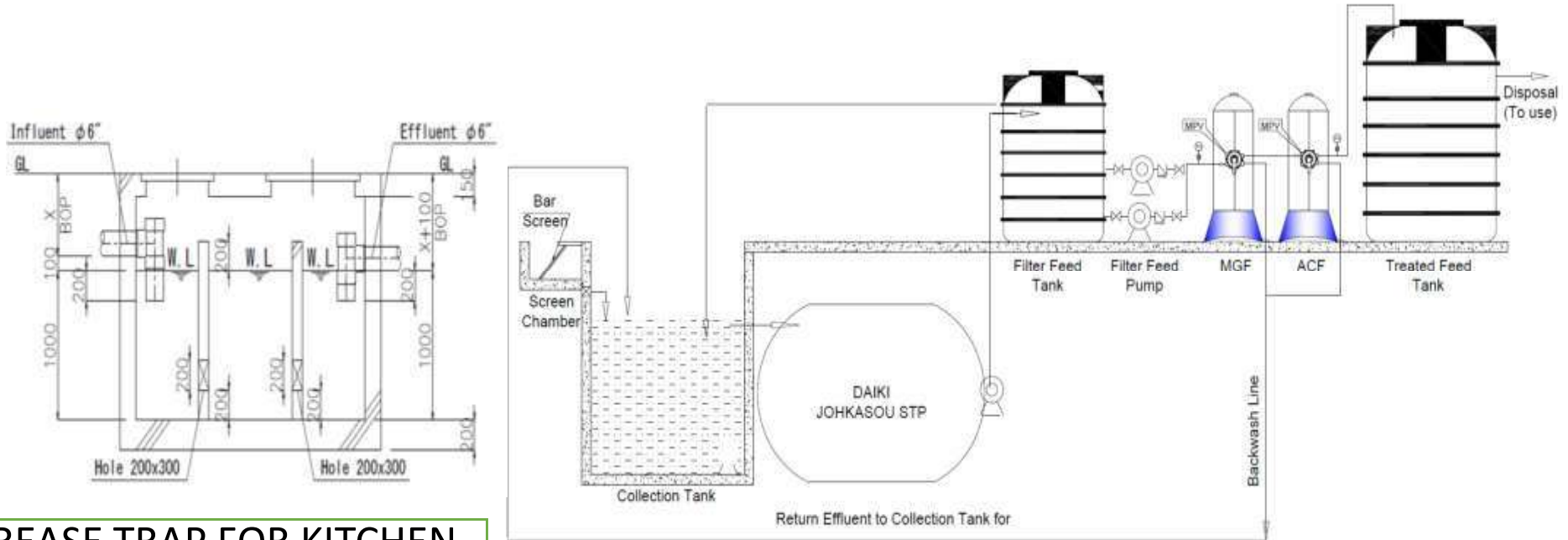
Effective Capacity

Construction  
(Example : 20KLD)

Area Space  
(Example : 20KLD)

# Solution for type of the Wastewater Treatment

- Daiki Axis provide suitable solution for each type of installation



GREASE TRAP FOR KITCHEN

## Inlet

Domestic  
Black & Gray

BOD 300  
TSS 240

## Primary

Screen  
chamber etc

BOD 300  
TSS 200

## Secondary

Johkasou-STP

BOD 10 or 20  
TSS 30

## Tertiary

Sand & Active  
carbon filter etc

BOD 10 or 20  
TSS 10

# Unique sales points & Features of 'Johkasou-STP'

- Johkasou-STP solve all your problem about domestic waste water treatment

50% Save  
Energy Cost

No need Operator

Quick Maintenance

Nitrogen Treatment

No Leak Smell  
No noisy Sound

No need  
Equalization Tank

Shock Flow  
Control

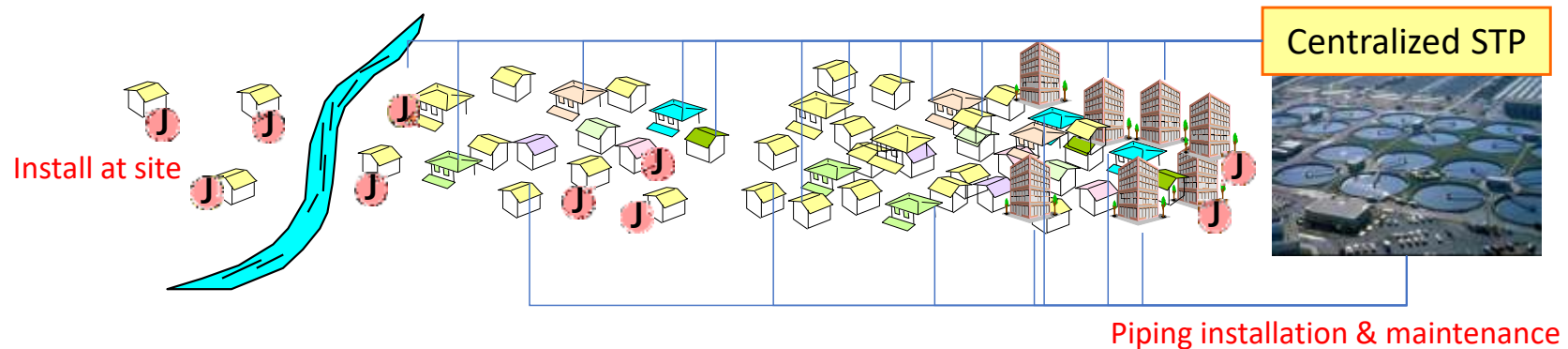
1 day Installation

High Treatment  
Performance

# Main concept of Johkasou-STP

- 'Treat at site, reuse at site' is main concept of Johkasou-STP, and most suitable concept for Indian demand & circumstances

'Treat at site, reuse at site'



Johkasou  
STP

- Treat at site, reuse at site
- Following development speed, it can install & increase
- Building by building, block by block it can install
- Small CAPEX

Centralized  
STP

- Piping cost from house to STP & STP to discharge location
- Based on Long years city development plan
- Pipe maintenance & replacement
- Big CAPEX

# Performance of JOHKASOU-STP

- Johkasou-STP AI-type & AIJ-type are low maintenance & energy consumption model  
And it's approved any pollution control board regulation

## Performance

Inlet	Parameter	AI-type Outflow	AIJ-type Outflow
6 – 8	pH	6 – 8	6 – 8
300	BOD	20	10
400	COD	50	25
240	SS	30	20
40	Oil & Grease	10	10
50	T-N	45	10

# Features\_ Running Cost\_ Comparison table

- You can save the Running cost very big ratio with Johkasou-STP !

## Running Cost comparison

	Johkasou STP	Conventional STP	Save the Running Cost
10KLD	0.21 Lakhs	1.29 Lakhs	1.1 Lakhs
50KLD	0.62 Lakhs	3.91 Lakhs	3.3 Lakhs
100KLD	1.63 Lakhs	7.55 Lakhs	5.9 Lakhs



We Believe Your support for considering us...

**Thank you for your  
attendance**