

COMPANY PROFILE



CHANCE TO CHANGE

## Change Today for a Sustainable Tomorrow

Since time immemorial, human civilizations have thrived along the river banks. But focus on economic development has put pressure on our natural environment including, the water resources. Unfortunately, the water bodies today have been converted into dumping areas for human, animal and industrial wastes.

### Water Recycling

The need of the hour with the ever-increasing population and the given limited water resources, water recycling becomes all the more important and urgent in order to reduce the high water stress in India. Thereby creating multiple water recycling opportunities that ease the acute pressure on our groundwater, which then can be used for drinking and other imperative usages.

### Japan's Water Story

Japan is a nation richly endowed with clean water. Despite using the water resources optimally, rapid industrial development over the decades pushed it further to its limits, thereby giving birth to the need to recycle. Through a holistic approach involving law, policies, technology, execution framework and clear priorities, Japan was able to come out of this adversity and make their water and environment beautiful again.

### Water Scenario in India

India is one of the most blessed countries in the world in terms of natural resources. However, the increasing demand for domestic, industrial and agriculture uses has put a strain on most of the river basins. While India is facing water scarcity, on one hand, it is battling with polluted water resources on the other across the country.



*"We promote the conservation of water environment to the world"*

**Daiki**  
**AXIS**  
Hiroshi Ogame  
President & CEO

**Having spent 60 years focusing on water and people's lives, our goal is to continue working towards becoming an 'eco-creation and development company' that provides greater support to humans and the natural environment. To realize this goal, we promote the conservation of the water environment to the world.**

#### Company Profile:

Company Name: Daiki Axis Co., Ltd.  
Date Founded: July 12, 1958  
Listed: Tokyo Stock Exchange 1st Section  
Turnover: Rs. 3,000cr (December 31, 2018)  
Employees: 800 (December 31, 2018)  
Headquarter: Matsuyama & Tokyo  
Group Turnover: Rs. 28,000cr

Daiki Axis is a pioneer in bringing state-of-the-art infrastructure across factories in Japan & overseas. The efficiency of this huge network is based on a high synchronization of 37 offices of Daiki Axis within Japan. Additionally, it is supported by 5 factories overseas and 7 subsidiaries that ensure a free-flowing system resulting in meeting ever-increasing demands.



# Water Recycling - The Need of the Hour

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## India's Approach to Water Recycling



For almost two decades now, India has been grappling with water stress issues. In spite of the major investments in sanitation and wastewater treatment infrastructures, India still is on a quest of achieving clean rivers, oceans and even underground water resources.

Although the Swachh Bharat Mission and other initiatives have played a vital role in addressing the issue of sanitation coverage and awareness creation, We are yet to find an effective solution to recycle and clean our natural water resources.

India so far has been focussed on creating large city-level infrastructures for sewage treatment but it has its own limitations when it comes to large scale project planning and the final implementation procedures. Since the water recycling system is being constructed for one of the most populated countries in the world, huge financial budgets are required for the construction and maintenance of the same.

## Johkasou Waste Water Treatment

Japan has developed Jhokasou- A decentralized treatment approach and used this concept effectively for wastewater systems. These systems have been in use for over 4 decades in Japan and have shown great results in relieving the pressure on water resources.

## Core Concept of Johkasou is “Treat at the Site, Reuse at the Site”

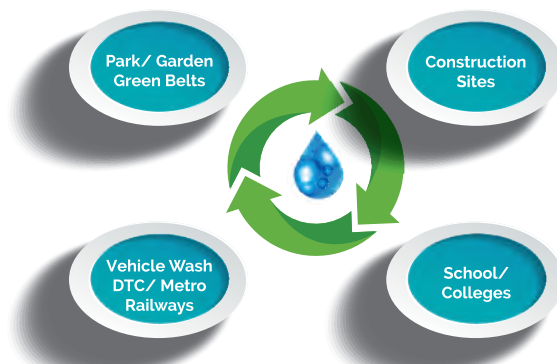
Johkasou-STP is the most suitable concept for Indian demand & circumstances for various reasons than any regular wastewater treatment system lacks. Johkasou is highly modular and scalable in nature, it can be easily installed block by block or building by building and it operates at a small CAPEX and a very low operational cost.

### Application of the recycled water

Treated water by Johkasou-STP can be used for several applications without tertiary treatment



Key Users for Recycle water and Jhokasou/DSTP Unauthorised colonies/slum



## Efficient production system for overseas demands

The domestic production division has four plants in Japan with an international-standard, ISO 9001 in quality management. At these plants, various types of water treatment equipments including Johkasou (Domestic Wastewater Treatment System) are manufactured for meeting the domestic and overseas demands promptly.



Interior of the factory



Automatic moulding machine



Automatic opener



Cylinder moulding machine



Spray Moulding



Product Assembly

## Daiki Axis manufacturing units overseas

Born in Japan to cater to the urgent needs of water resources, Daiki Axis is creating a network across the globe to give the world a fair chance to change our depleting water resources. Continuing with the policy of 'treat at site, reuse at site', Johkasou is a revolutionary solution to wastewater treatments across countries in the 21st century.



Fukushima works



Shinshu Works



Indonesia Works



Vapi, India Works



Matsuyama Works



Tsushima Works



# Johkasou (Domestic Wastewater Treatment System)

Advanced features and benefits:

- Easy to maintain, high-performance treatment system
- Removes nutrients efficiently
- A spacious separation box is given to separate & store the sludge. The sludge can be drawn at the time of maintenance, which is recommended once after 6 months
- Available in three different models catering to the varying output requirements
- Consumes low energy
- Lesser operating cost
- Highly modular and scalable
- Long plant life and consistently high performance

## Performance of Johkasou-STP

Johkasou is capable of meeting the needs for output qualities expected by the government regulatory bodies or as per the application requirements.

Inlet	Parameter	A I-type Outflow	A I J-type Outflow	A I M-type Outflow
6-8	pH	6-8	6-8	6-8
300	BOD	20	10	5
450	COD	50	25	10
240	SS	30	20	5
80	Oil & Grease	10	10	5
50	T-N	45	10	10

## Images of Installation Johkasou-STP

APARTMENT COMPLEX  
(60KLD)



INDIVIDUAL HOUSE  
(1KLD)



FACTORY  
(30KLD)



COMMERCIAL BUILDING  
(40KLD)



INCREASED CAPACITY



INSTALL UNDER CAR PARKING



INSTALL UNDER GREEN

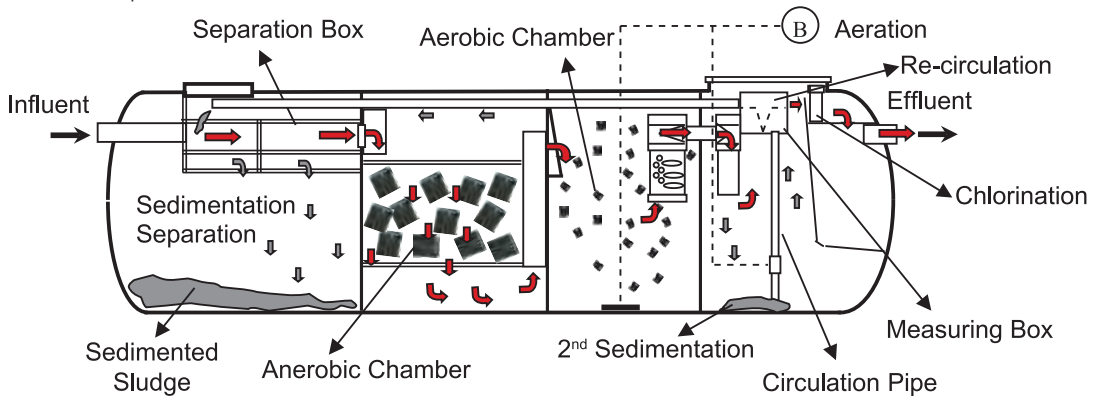
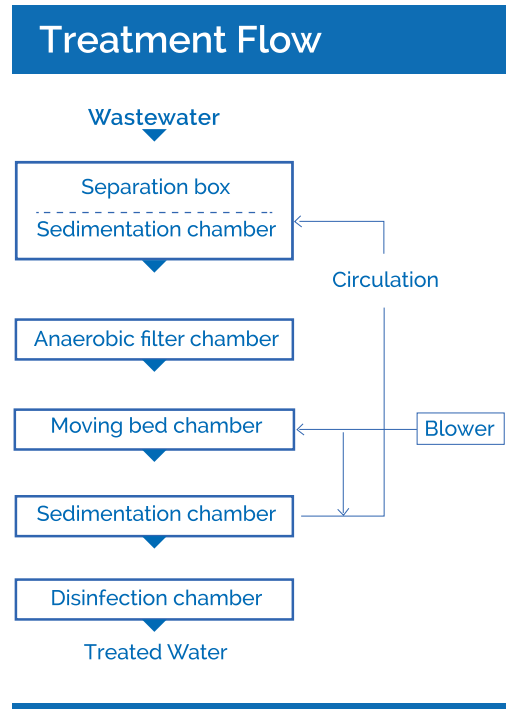


# High-Performance Johkasou Technology

The process of effective decentralized treatment of water through Johkasou (As explained in diagram below):

- Chamber 1:** Beginning with the process of decantation, where the liquid & solid waste are separated by the simple use of gravity
- Chamber 2:** Anaerobic media is the place where microorganisms decompose organic material contained in the domestic wastewater.
- Chamber 3:** Moving bed chamber is filled with MBBR Media that comes into action by aeration.
- Chamber 4:** Sedimentation chamber
- Chamber 5:** Disinfectant is used as a sterilization agent to remove pathogenic microorganisms from the treated water before it is discharged into the environment or next level of treatment based on the usage requirements.

**Re-Circulation system:** This part ensures circulation in the sedimentation chamber for the re-treatment of water. Since it becomes like an anaerobic chamber, the process of denitrification is repeated for the second time in the final process.

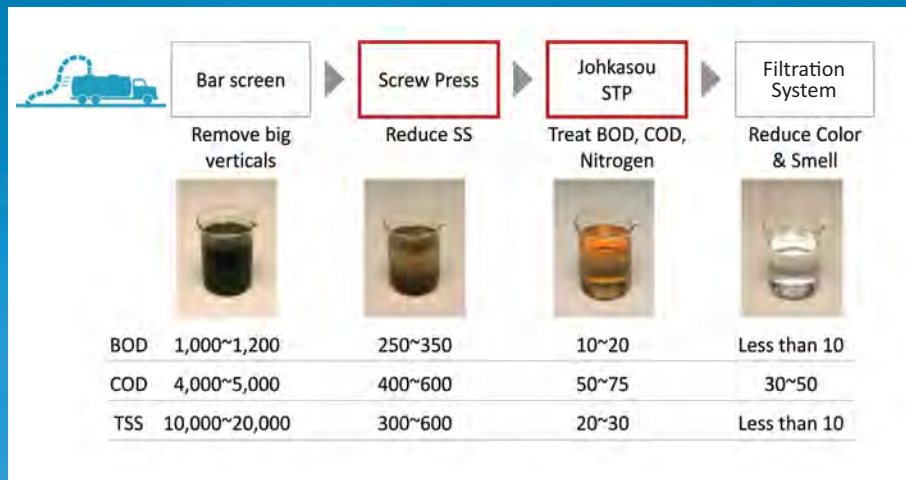


## Features of Johkasou-STP

Low energy consumption	No operator required (Automatic)	Quick Maintenance
Nitrogen & Phosphorous Treatment	No Leak Smell No Noisy Sound	Equalization Tank not required
LOW Sludge Generation	1 day Installation	Highly Efficient Performance

# Advance Treatment for Fecal Sludge

Fecal sludge treatment in India needs enough attention. The Japanese package makes the fecal treatment process more efficient, compact and energy-saving. In a conventional package, the excess sludge is treated with centrifugal and decantation procedures to separate water from the sludge, the end product being untreated water and sludge cake. In the Japanese package, on the other hand, water and sludge are bifurcated by screw-pressing the fecal sludge to be converted into cakes. The untreated water is then sent to Johkasou STP to be converted into the water which can be used for gardening, cleaning and other purposes.



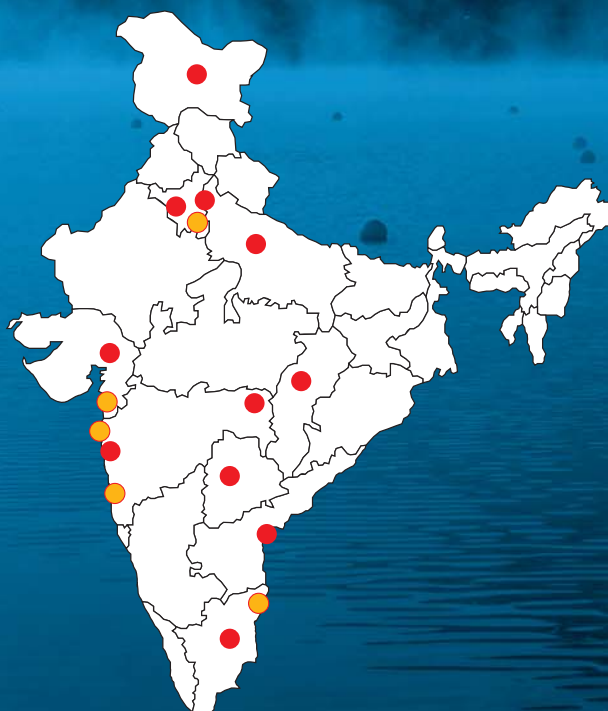
## Network

Daiki Axis Group has offices and affiliated companies in major cities in Japan, as well as in China, India and Indonesia. Through this network of security and reliability that spreads across Japan, China and Southeast Asia, we cover every detail of our customer's requirements

Daiki Axis India has offices and partners in major cities of India. It has already installed decentralised system for water waste recycling in several cities and over 100 sites.

### ● Daiki Axis India

- Delhi
- Vapi
- Mumbai
- Pune
- Chennai



### ● PARTNERS

- J&K
- Delhi
- Haryana
- UP
- Gujarat
- Chhatisgarh
- Maharashtra
- Telagana
- Andhra
- Tamil Nadu



**Daiki**   
**AXIS**  
**INDIA**

