



Ira Envirotech

Solution for Pollution Free Environment



SINCE 2020

ENVIRONMENTAL

TECHNOLOGY SOLUTIONS

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(1 April 1957 - 5 March 2025)

Late Shri.

Prakash Dattatray Sankhe

The Firm of IRA ENVIROTECH is deeply inspired by my beloved father, who worked diligently at the renowned Camlin in the 1980's. Through his hard work and dedication, he supported our family and always taught me the importance of perseverance, integrity, and determination. His guidance enabled me to pursue quality education at the prestigious Veermata Jijabai Technological Institute of Mumbai, which later shaped my vision of contributing to environmental solutions for industries.

With these values at the core, IRA ENVIROTECH was established in 2020 with the aim of addressing complex environmental challenges through practical and sustainable engineering solutions. Even during the difficult period of the COVID-19 pandemic, we continued to work with commitment and resilience, steadily building our capabilities and client relationships.

Today, IRA ENVIROTECH continues to grow like a young sapling turning into a strong tree. Our success is not measured only by financial achievements, but by the trust we build with our clients, partners, and team members while contributing toward a cleaner and more sustainable environment.

- By Akshay Prakash Sankhe

EFFLUENT TREATMENT PLANT

02

IRA ENVIROTECH provides complete design, manufacturing, supply, erection, and commissioning of Effluent Treatment Plants.

Each plant is designed after detailed influent treatability studies to ensure efficient treatment and compliance with Pollution Control Board norms.

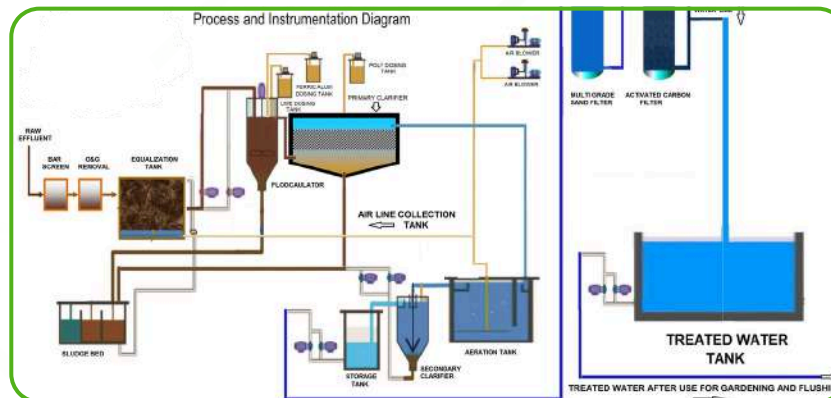
Treatment Stages

- 01. Preliminary Treatment**
Removal of large solids, grit, oil, and grease using bar screens and grit chambers.
- 02. Primary Treatment**
Removal of suspended solids through coagulation, flocculation, and sedimentation.
- 03. Secondary Treatment**
Biological treatment using microorganisms to break down biodegradable matter (BOD) using technologies such as MBBR and SBR.
- 04. Tertiary Treatment**
Advanced treatment to remove residual contaminants using Reverse Osmosis (RO) and UV Disinfection.



Applications

Pharmaceutical • Textile • Chemical Industries



SEWAGE TREATMENT PLANT

03

IRA ENVIROTECH is a prominent provider of quality design, supply, and commissioning services for Sewage Treatment Plants.

Sewage Treatment is the process of removing contaminants from wastewater generated by residential households and corporate offices. It combines physical, chemical, and biological methods to produce environmentally safe treated water. Additionally, the dried sludge recovered from the process is repurposed in agriculture and landscaping as a nutrient-rich fertilizer.



Treatment Stages

01. Preliminary Treatment

Screens debris and removes grit, eliminating up to 60% of suspended solids.

02. Primary Treatment

Clarifies wastewater by settling heavier organic solids as sludge and skimming oils, grease, and fats, removing 50–60% of suspended solids and reducing 30–40% of BOD.

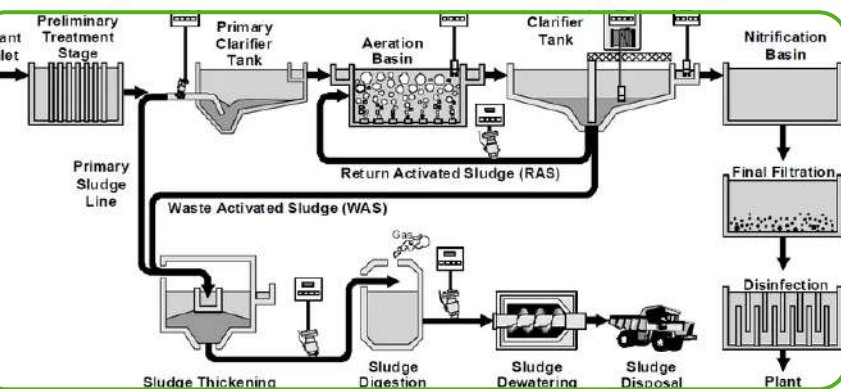
03. Secondary Treatment

Aerates wastewater to grow aerobic bacteria that consume organic pollutants, then clarifies by settling microorganisms as activated sludge, significantly reducing BOD.

04. Sludge Recycling:

Returns a portion of biological sludge to the aeration tank to maintain bacterial populations and ensure continuous treatment efficiency. Remove suspended solids & turbidity.

Types of Secondary Treatment Plants –
Moving Bed Biofilm Reactor (MBBR)
Membrane Bio Reactor (MBR)
Sequencing Batch Reactor (SBR)



The plant is operated as per the rules of the Pollution Control Board & the concerned corporation.



ORGANIC WASTE COMPOSTER

04

In view of the current environmental challenges, waste management has become a critical issue. To address this, IRA ENVIROTECH provides advanced organic waste composters—waste decomposition machines that we also operate and maintain.

Operational Stages

01. Segregation

Collecting biodegradable waste (kitchen scraps, garden waste) and removing non-organic materials such as plastics and glass.

02. Shredding/Grinding

Breaking down large items into smaller pieces (ideal particle size: 2–2.5 cm) to increase surface area for faster microbial action.

03. Mixing (“Greens” & “Browns”)

Combining nitrogen-rich “greens” (kitchen scraps, grass clippings) with carbon-rich “browns” (leaves, sawdust, cardboard) to achieve an optimal carbon-to-nitrogen ratio of 25:1 to 30:1.

04. Aeration & Turning

Regularly mixing the pile or using a turner/tumbler to introduce oxygen, preventing odor and accelerating decomposition.

04. Moisture Control

Maintaining moisture levels similar to a wrung-out sponge (approx. 50–60%).

Instead of sending organic waste to landfills—where it contributes to methane emissions—composting enables beneficial reuse. It improves soil quality, conserves water, and reduces the need for chemical fertilizers, making it a sustainable solution for waste management.



ZERO LIQUID DISCHARGE

05

In many industries such as Chemical, API, Textile, and certain distilleries, influent parameters often cannot be maintained within

Pollution Control Board regulations due to complex chemical and solvent compositions. To comply, these industries adopt Zero Liquid Discharge (ZLD) systems, which treat influent and effluent before and after the effluent treatment plant to ensure no liquid waste is released.



Operational Stages

01. Stripper Column & Evaporation Unit

Removes volatile, low-boiling organic compounds (VOCs) and solvents (e.g., methanol, IPA) from wastewater using steam or gas, reducing COD and protecting downstream equipment.

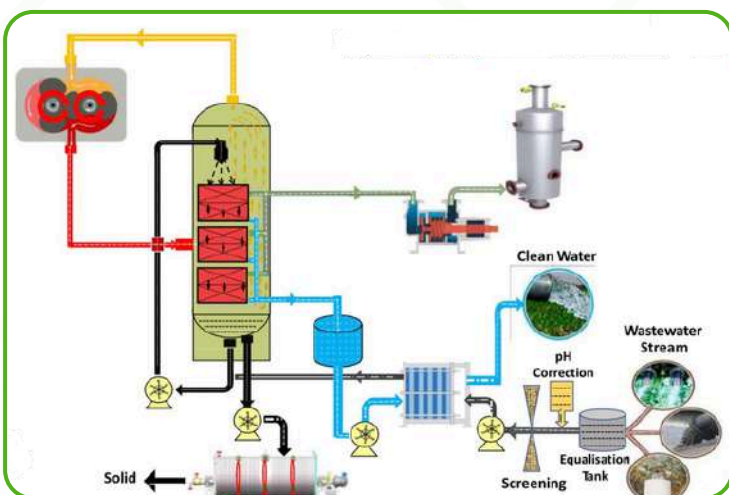
02. Mechanical Vapour Recompression (MVR)

Concentrates or purifies liquids by vaporization at reduced temperatures under vacuum pressure.

03. Agitated Thin Film Dryer (ATFD)

Continuously converts high-viscosity liquids, slurries, or pastes into dry, free-flowing powders or flakes.

Following these processes, Reverse Osmosis (RO) is applied to further improve permeate water quality. The treated water can then be reused for production or other industrial applications, eliminating the need for conventional effluent discharge and ensuring compliance with environmental standards.



ENVIRONMENTAL MONITORING & ANALYSIS

06

We deliver comprehensive environmental monitoring, industrial hygiene assessments, and agricultural analysis through NABL-accredited laboratories. All reports are prepared in line with national standards and are fully recognized by government authorities, ensuring accuracy, compliance, and trustworthiness.

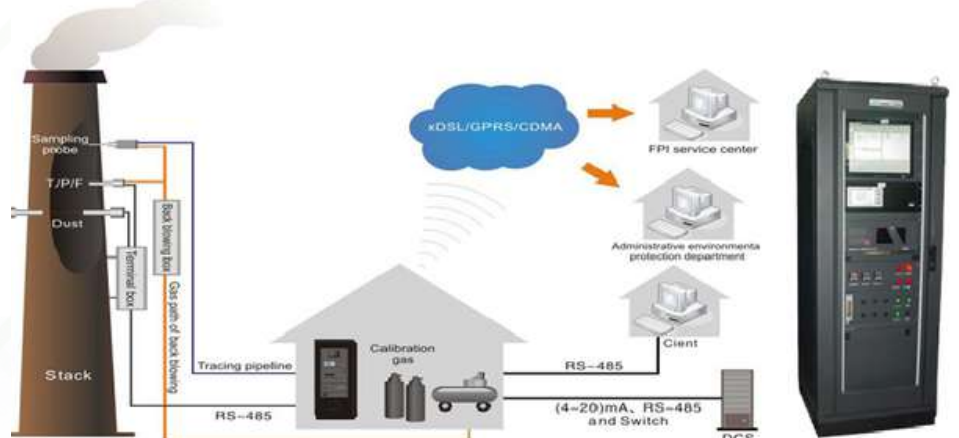


ANALYZER & LAB INSTRUMENTS

07

We also provide water monitoring & analysis instruments, safety instruments, environmental monitoring instruments, & lab equipment.

- pH
- ORP
- EC
- DO
- Chlorine
- Turbidity
- TSS
- TDS
- COD



TANK CLEANING

08

We clean sewage & effluent tanks, drinking water tanks, chemical & solvent storage tanks cleans manually or through other advance sophisticated machines, & we completely remove the dirt from them & dispose of them legally as per government authority norms.



De-Water pump



30 L Wet/Dry Vacuum Cleaner



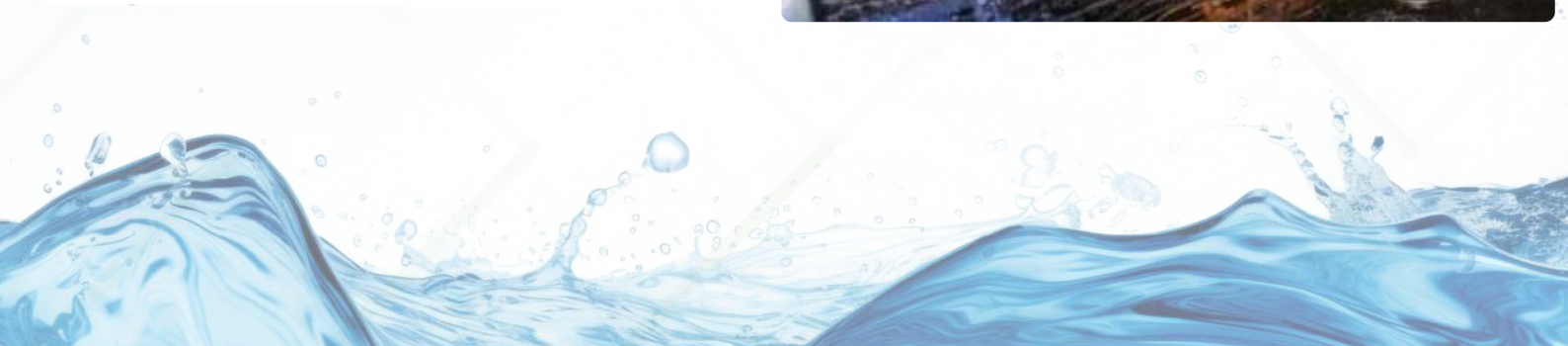
Sludge Sucker



UV lamp



High Pressure 130 bar Machine



CHEMICAL & MATERIAL SUPPLY

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We provide all the treatment chemicals required for waste water treatment plants i.e. ETP, STP, WTP & ZLD units. provides raw materials for the Pharma ,Chemical ,API & Textile Industry.



Poly Electrolyte Powder



Non Ferric Alum Powder



Citric Acid Mono



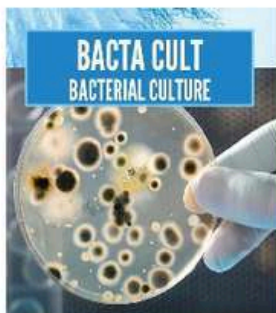
Defoamer



Ferric Alum



Sodium Hexametaphosphate



Bacteria Culture



Sodium Metabisulfite



Cooling Tower Chemicals



Boiler Water Chemicals



RO Antiscalant Chemicals



UREA



DAP



COD reducer



sludge remover



Liaisoning Services

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Liaisoning Services act as an intermediary between businesses & government/regulatory bodies to secure approvals, permits, and clearances for projects, ensuring compliance and reducing delays. These experts facilitate obtaining factory licenses, environmental clearances, & utility connections (power, water) from authorities



- Approved
- Disapproved

Signature _____



FEW VALUABLE CLIENTS WE SERVE

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Swastik Industries



MAXWELL LIFE SCIENCE PVT.LTD.



AMBANI ORGANICS LIMITED



Aarey
DRUGS & PHARMACEUTICALS LTD.



BAJAJ HEALTHCARE LIMITED



INDUSTRIAL BOILERS LTD.



ZENITH BIRLA
(INDIA) LTD



MELODY
HEALTHCARE



NOVAPHENE



SevenHills
HOSPITAL

SHIRKE

GROUP OF COMPANIES



AVIGHNA®



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