FABTECH

Gearing up the Global Trends in Water & Solid Waste Solutions, Incineration, and Bio Medical Waste Solutions

INTRODUCTION

"Customer satisfaction is our motto"

Fabtech Engineering was established in the year 1990 in Delhi. The company has grown by leaps and bounds in the industry. Owing to his hard work, the company is today known as a dynamic Manufacturer and Wholesale Supplier of Sanitry/Napkin/ Document Incinerator, Marine Incinerators/Shipboard Incinerator, Incinerator with Eductor System, Water Softening Plant, ETP, STP, WTP, UF etc...

CE MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF eiac مركز الإمارات العالمي للاعتماد Emirates International Accreditation Centre LMS ASSESSMENTS DAC Certified ISO 9001:2015

SANITRY / NAPKIN / DOCUMENT INCINERATOR

CAPACITY 5-50KG/HR

FUEL: LDO/HSD/GAS AND OTHERS
POWER : 220V OR 415VOLTS THREE PHASE SUPPLY
LOADING : MANUAL AND AUTOMATIC

- Incinerator meant for instant and simple disposal.
- Economically priced incinerator
- Mobile type

Meant for instant and simple disposal, instantly ready to use incinerator for mobile use to dispose Quickly food waste, garbage, small dead animals and poultry waste, Being a small size, simple unit, it can be mounted on any trailer, transport and taken to any desired location.

A single burner is provided for both waste and flue gas resulting in clean emission. Optional after burner can
also be provided. This model is economical in terms of initial investment and in operational costs. This incinerator is provided with a counter balanced door convenient for opening and closing and easy loading of waste into the chamber directly from the top.

It can be used at Apartment's, food and confectionary, hostel, small poultry industries and small units this incinerator can handle animal or slaughter house waste, confldential documents, food waste, sanitary napkins, municipal garbage waste products

MARINE INCINERATORS / SHIPBOARD INCINERATOR

Efficient & Environment friendly - 99.9% destruction and removal efficiency of organic content with clean emissions, saves marine life, Saves labour and space, Saves loading of solid waste.

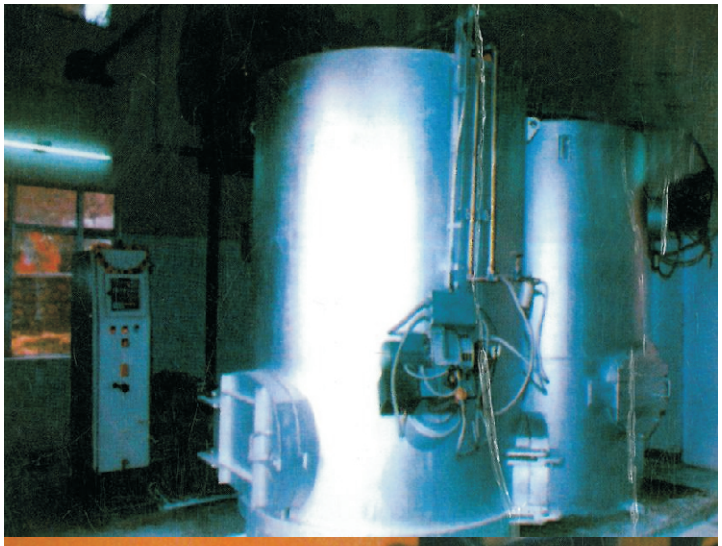
Compact **triple chamber design** to flt in standard shipping containers, simultaneous burning of solid and liquid waste, re-circulation pump with self-cleaning fllter for sludge tank, variable speed sludge dosing, PLC control with HMI, Special surface preparation and marine grade painting, special refractory for long life, fully automatic operation, high temperature inside and low skin temperature.

This Incinerator was designed and made primarily for use on board ships of various types. Until now the shipping industry as well as the Indian Navy and coast guard have been buying these incinerator.

This incinerator will **handle solid, solid-liquid and liquid sludge waste all together**, it is provided with an **air locked double door for solid waste and fully automatic.**

This machine can handle **general waste, food waste, packing waste, waste oil from generator, heavy oil sludge from tank cleaning operation.**

FABTECH INCINERATOR WITH EDUCTOR SYSTEM



First Chamber

The waste is charged in flrst chamber through a feeding door. The incineration of waste is carried out in starved air, known as “Pyrolytic condition”. Subsequently the waste is decomposed into gas containing combustibles and cabonaceous material. The low velocity of gas also helps in minimising carryover of the particulate matter. The temperature is closely controlled between 800C° to 900C ° with the help of a burner to ensure efflcient combustion of carbon. Sterile ash is removed from the de-ashing door.

Second Chamber

The flue gas from the First Chamber containing volatiles and unburnt pass to the second chamber. Here it is burnt under turbulent conditions and with an additional supply of combustion air. Complete oxidation is ensured by maintaining temperature above 1000°C with the help of a burner and providing adequate Residence time (minimum 1 second).

Venturi Scrubbing System

The flue from the second chamber then passes through the downstream Air pollution Control System. This system comprises of venturi scrubber, droplet separator followed by an induced draft (ID fan), all made of corrosion resistant material.

The flue gas from the second chamber is cooled to 850C° and then sent to Venturi scrubber. Here, the acidic component are removed by absorption with caustic and the particulates by the inertial impaction energy. A high pressure drops across the venturi scrubber imparts sufflcient energy which helps in atomizing the scrubbing liquid and thus trapping even the minute particulates.

In case of Incinerator with Eductor System, the flue gas coming out of second chamber above 1000 C enters the Eductor Mechanism which brig down the temperature of flue gas to 250-300 C by mixing in the appropriate quantity of ambient air. It also maintains the entire system under negative pressure, thus ensuring safety operations.

Incinerator are used to treat waste from : Hospitals, Pharmaceutical Industry, Hotels & R & D Centres

- Electric Type
- Gas Fired
- Diesel Fired

Burning Capacity
5 to 500kg/hr

FABTECH EFFLUENT TREATMENT PLANT

We Design, Manufacture, Supply, Erection and Commissioning Effiuent Treatment Plant (ETP) on Turnkey basis for various types and natures of wasteWaters, effiuents which combines advanced physico-chemical treatment processes with tertiary polishing system for the removal of organic, inorganic, oil and grease, heavy metals & suspended solids.

Our methodology - We analyze the effiuent samples for different effiuent parameters as per nature and compositions, carry out the treatability studies by using different methods checking techno-commercial Feasibility and then designed treatment schemes, processes accordingly to suit the purpose and need.

Our ETP systems are very compact, tailor made designs, portable required very less foot-print to accommodate, energy efficient. The up-gradation, modification in the existing ETP system is possible to achieve desired limiting standard laid down by the Pollution Control Board (PCB).

ETP Containerised Type

Capacity : 10 – 150 KLD, As per client Requirement
Tecnology : Physical / Chemical / Biological / UlFiltration
Features :

Semi-automatic Operation.

Required less space as compared to conventional design.
Very Compact and Great aesthetic.
Reduced Installation and commissioning time on site.
Plug and play operation.
Easy Dismantling and transportation.
Made to order product.
Civil Work – Collection Tank and Container Foundation.
Typical Industries : Chemical, Pharmaceuticals, Automobiles, etc.

ETP - Continuous Type

Capacity : 15 to 1000 KLD, As per client Requirement
Treatment : Physical / Chemical / Filtration
Features :

Semi-automatic Operation.

MS process tanks with internal FRP Coating
Automatic chemical dosing with online pH monitoring.
Advanced Filtration systems like UF, RO for Zero liquid discharge.
Advanced sludge handling system.
Compact design ,required low foot print
Better treated effiuent quality as compare to conventional system.
Corrosion free UPVC piping & FRP / Epoxy Lined MS tanks.
Process Tanks – MS Fabricated / Civil (RCC)
Typical Industries : Automobile, Metal pre-treatment, Pharmaceuticals, Chemical, etc.

FABTECH SEWAGE TREATMENT PLANT

SEWAGE Treatment Plant (STP)

Sewage Treatment Plant or STP plant is employed to get rid of contaminants from waste water. It involves physical, chemical and organic process to get rid of physical, chemical and biological contaminants.

Sewage Treatment Plant is extremely effective and economical.

Our clients give regeneration(best STP Manufacturer) for the compact design, user friendly, durability, low maintenance, corrosion resistance and longer service life features of all our STP plant structures and performance.

TYPES OF STP (SEWAGE TREATMENT PLANT)

1. E.A. (Extended Aeration)

2. SAFF (Submerged Aeration Fixed Film)

3. SBR (Sequential Batch Reactor)

4. MBBR (Moving Bed Bio Reactor)

5. MBR (Membrane Bio Reactor)

6. BIOFOR Technology (Biological Filtration and Oxygenated Reactor)

SEWAGE TREATMENT PLANT (STP)

We offers an entire range of Sewage Treatment Plant solutions. Either using conventional world class technologies or more modern membrane processes.

We provide best result to customer for STP Plants/Projects Environment control plants. We using world class technology & Economically, Easy to work , Customized solutions.

The Technology used by the Sewage Treatment Plant Manufacturer

1. Extended Aeration (EA): Extended Aeration (EA) Sewage Treatment Plants (STP) are a sustainable solution for wastewater treatment. These systems utilize aeration to promote the growth of beneficial microorganisms that break down organic matter in sewage. EA STP plants are known for their energy efficiency and environmental friendliness, making them a key player in the quest for cleaner waterways.

2. Submerged Aerated Fixed Film (SAFF): Submerged Aerated Fixed Film (SAFF) Sewage Treatment Plants (STP) are eco-friendly wastewater treatment systems. They combine fixed film media with aeration to facilitate the growth of beneficial bacteria that break down pollutants. SAFF STP plants are renowned for their efficiency, low energy consumption, and contribution to cleaner water resources, aligning perfectly with environmental sustainability goals.

3. Sequential Batch Reactor (SBR): The Sequential Batch Reactor (SBR) Sewage Treatment Plant (STP) is a versatile wastewater treatment solution. Operating in a cyclic batch mode, it efficiently removes contaminants through aeration and settling processes. SBR STP plants are valued for their adaptability, reduced energy use, and effective treatment of wastewater, contributing to a greener environment.

4. Moving Bed Bio-Reactor (MBBR): The Moving Bed Bio-Reactor (MBBR) Sewage Treatment Plant (STP) is an advanced wastewater treatment method. It employs suspended plastic media to provide a surface for beneficial microorganisms to thrive. MBBR STP plants are known for their compact design, high efficiency, and ability to handle varying wastewater loads, making them a sustainable choice for cleaner water treatment.

5. Membrane Bio-Reactor (MBR): The Membrane Bio-Reactor (MBR) Sewage Treatment Plant (STP) is a cutting-edge wastewater treatment technology. It combines biological processes with membrane filtration to remove contaminants effectively. MBR STP plants are celebrated for their high-quality treated water, compact design, and sustainability, playing a pivotal role in preserving our environment through advanced sewage treatment methods.

ADVANTAGES OF COMPACT SEWAGE TREATMENT PLANT

1. Gives 100 percent ROI

2. Utilize water efficiently

3. Low maintenance cost

4. Low operation cost

5. Efficient cleaning

WATER TREATMENT PLANT

Having access to clean, contaminant-free water is essential for any business. However, many companies rely on tap water that contains various impurities and minerals that can negatively impact operations and products. Implementing a commercial reverse osmosis water treatment system provides higher quality water for various commercial applications. Below are 5 key benefits businesses can realize by investing in reverse osmosis water purification.

Removes Harmful Contaminants

One of the biggest advantages of reverse osmosis for commercial applications is its ability to remove harmful contaminants from water. RO effectively filters out heavy metals like lead and mercury, organic compounds, bacteria, viruses, salts, and other particles. By generating water virtually free of contaminants, businesses can avoid issues like buildup and corrosion in equipment, compromised products, and potential health risks for employees and customers. RO purification also removes chlorine typically found in municipal tap water sources.

Improves Product Quality

Clean, impurity-free water is essential for many manufacturing processes and products. Beverage companies, food processors, pharmacies, electronics manufacturers, and other industries can all benefit from the higher purity of reverse osmosis treated water.

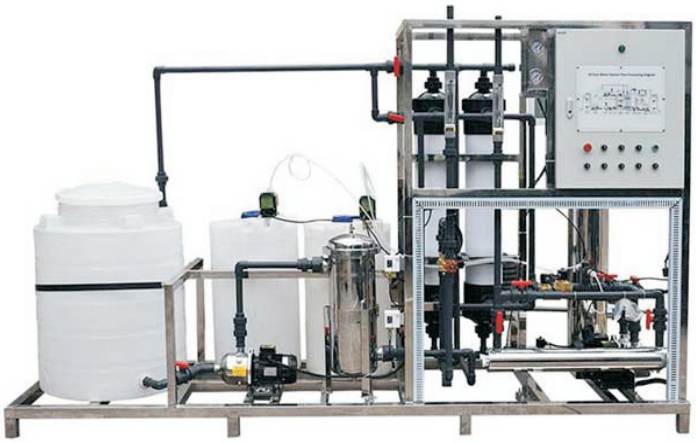
Lowers Operating Costs

Mineral-laden tap water can lead to costly problems like staining, scale buildup, corrosion, fouling of membranes, and interference with chemical processes. By removing up to 99% of total dissolved solids, reverse osmosis minimizes these issues, reduces downtime for cleaning and repairs, and extends the life of capital equipment.

Improves Equipment Lifespan

The scale, corrosion, fouling, and mineral deposits caused by tap water can damage piping, valves, heat exchangers, boilers, and other water-using equipment. By providing mineral-free water, reverse osmosis minimizes these problems, allowing equipment to run more efficiently and extending equipment lifespan.

ULTRAFILTRATION SYSTEM PLANT



There are many advantages to using ultrafiltration system plants, including that they use very little energy. The use of recycled water reduces the energy needed for water treatment. These plant also minimise waste and cost by using more environmentally friendly water. A significant advantage is that these plants can accommodate reuse. You should know the cost of replacing the membrane, as well as any replacement costs before you purchase your system. Compared to secondary and tertiary filtration systems, ultrafiltration plants are fast, efficient, and inexpensive. These devices remove suspended solids, colloids, and microorganisms from water. The advantages of ultrafiltration are numerous.

SWIMMING POOL FILTRATION SYSTEM PLANT

Swimming pool filtration systems are always given low priority when designing a swimming pool. Most planners give importance to only chlorination in a swimming pool. We have the expertise, the technology, and the know-how to design, manufacture, supply, and install the filters in order to achieve the ideal filtration return ratio as well as optimum energy consumption to filtration capacity operation.

An effective and complete swimming pool filtration system results in a crystal clear water quality. This maintains the swimming pool water perfectly safe for swimming. This helps in keeping the water quality ideal for the skin, eyes, and general health of the public.

The swimming pool filtration system is the most significant part of the pool circulation system. This filtration system can be sized as per usage and application so as to make sure that the water quality remains crystal clear and healthy throughout. Skid water filtration units are essential for commercial swimming pools and ensure a. At the same time, the quality standards remain at the highest level.

Complete pool filtration systems are quite suitable for high-end residential, public, commercial, resort pools and Interactive waterpark pools. Factors such as sun exposure, proximity to garden, wind, distance from filtration room, the intensity of usage, and other data need to be considered before providing the appropriate swimming pool filtration systems.

Features of Swimming Pool Filtration System

1. Fast and trouble-free installation

2. Easy to use

3. Increased Reliability

4. Lower consumption of water

5. Higher quality of water filtration

6. Compact size

7. Easy to clean and maintain

HOSPITAL EFFLUENT TREATMENT PLANT / WASTE WATER

Hospitals discharge many wastewater that contains different sorts of wastes including antibiotic-resistant bacteria, viruses, and should be prions. If this water isn't treated adequately, the sewage will come directly in touch with groundwater and contaminate, making it hazardous to human health and therefore the environment (air, soil, and water). By understanding the complications that related to the treatment of hospital wastewater, we design and install an effluent treatment plant to treat this discharge wastewater fully compliance with the environmental and other regularities. We provides modernized, customized plants with a really high level of operational reliability, guaranteeing optimized energy consumption.

Hospital wastewater are generated by several departments of the hospital like as patient wards, surgery units, clinical wards, ICU, kitchen, laundries and possess a quite variable composition counting on the activities involved.

Hospital wastewater also consists of various persistent chemical compounds and sophisticated mixtures of organic matter including pharmaceuticals, radionuclides, detergents, antibiotics, antiseptics, surfactants, solvents, medical drugs, heavy metals, radioactive substances, and potential pathogenic and drug-resistant microorganisms.

REVERSE OSMOSIS PLANT

Reverse osmosis is forcing water through a membrane to purify it. This process is also used in desalination, and this type of plant is typically large. Reverse osmosis is a popular choice for water desalination and purification. If you have a centralized filtration system, reverse osmosis can significantly increase your supply of clean drinking water. Reverse osmosis systems have several stages. First, the water passes through a pre-filter. Some systems include more than one. The most common pre-filters are carbon filters and sediment filters. These filters remove particles and sediment from the water before the semipermeable membrane. They also make the water taste and smell better.

How does an Industrial RO Plant Workfl

The raw water is pumped through the disc filter where large colloids and particles are removed and further reaches the multigrade filter which removes turbidity, sediments, dirt from the water and acts as a protection to the RO membrane. Further, the water reaches the activated carbon filter which removes odor, color, small particles like chlorine organics, etc.

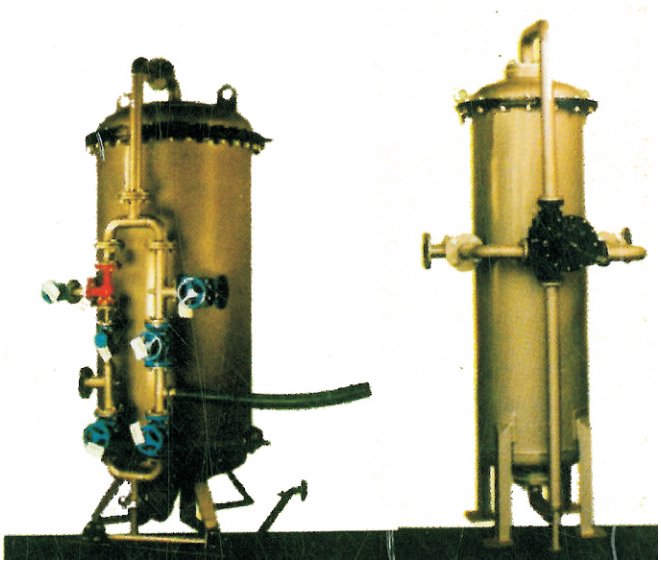
The raw water then enters the Antiscalant Dosing System which pumps chemicals in the water to prevent scale formation on the edges of the RO Membrane followed by micron filter which further removes turbidity up to 5 microns. The in-process water enters into the pressure pump which increases the flow and pressure of water and enters into a Reverse Osmosis Membrane which helps in removing dissolved colloids, bacteria, viruses and all particles with pores size as low as 0.0001 microns.

The water then enters Rotameter (it check the flow of final water, rejected water & recirculated water). The ultraviolet system embedded in the RO Water Plant System removes residual bacteria, viruses further acting as a disinfectant. Finally, we get fresh and pure water to die down our thirst.

The process is repeated again by entering into the CIP cleaning system that takes a course of action by removing the scales from the RO membrane and the cycle to obtain pure water is repeated again.

Industrial and Commercial RO Water Plant of various capacities starting from 05 LPH ~ 500000 LPH (Litre Per Hour).The capacities mentioned is with respect to the number of people in an organization.

FABTECH WATER SOFTENERS PLANT



The raw water passes through a bed fllled with small polystyrene beads known as ion exchange resins where sodium ions are exchanged for harness forming ions Once the beads are saturated with calcium and magnesium, the unit enters a regenerating cycle.

The sodium collects on the beads, replacing the calcium and magnesium. Once the phse is over, the mineral tank is flushed of excess brine and brine tank is reflllled.

Softeners are devices that use ion exchange resin, an insoluble matrix, to clean and deionize water. The resin contains pores with highly developed surfaces that attract ions and release them.

Operation Of Water Softening Plant In the long run of usage when these softeners are covered with these hard ions, the water softeners will start to lose its ability to do its work however through a process called regeneration, it will be about to continue its softening process from salt (Brine Solution).

Our focus is always been and shall always be to be Reliable and Innovative (innovative environmental solutions).

Features of FABTECH ecoCOMPOSTER

1. Automatic: PLC controlled, fully automatic. No Skilled labour required.
2. Size: Compact in Size, Less Space required.
3. Processes all kinds of Organic Waste: Food Waste, Garden Waste, Poultry Waste, Meat Waste
4. Completely Natural Process with the help of Microorganisms
5. Noiseless and Odourless

6. High Quality Parts: Stainless Steel Tank and Other Contact Parts, Exterior MS Structure with Powder Coating anti-corrosive.
7. 3 R Principle: Reduce, Reuse and Recycle
8. Safety Features: Mixing Blades stops when door is opened, overload function, HMI for process information.
9. Saves Environment: Reduces harmful Green House Gases, Leachate formation

How ecoCOMPOSTER Work

Model	Capacity	Compositing System	Input	Output	Heating System	Composite removal	Dimension
FE/EC/30	30Kg/Day	24-48 Hrs Microorganism Based Composting	Segregated Organic Waste	Dry Organic Compost	SS Electrical Heater	After 48-60 hrs	4.8 x 2.4 x 3.6 Ft.
FE/EC/75	75Kg/Day	24-48 Hrs Microorganism Based Composting	Segregated Organic Waste	Dry Organic Compost	SS Electrical Heater	After 48-60 hrs	6.21 x 3.0 x 4.43 Ft.
FE/EC/250	250Kg/Day	24-48 Hrs Microorganism Based Composting	Segregated Organic Waste	Dry Organic Compost	SS Electrical Heater	After 48-60 hrs	8.53 x 4.46 x 6.12 Ft.

FABTECH

Gearing up the Global Trends in Water & Solid
Waste Solutions, Incineration, and Bio Medical Waste Solutions

Specialised in Turn Key Projects

Assessment : Carry out a professional free of charge survey resulting productivity plus substantial savings.

Project Planning : Backed by state of art technology and manufacturing facilities, solutions for your requirements.

Installation : Responsibility for complete operation and installation with minimum interruption to your production.

Commissioning : Our Personnel commission the equipment and ensure that you are completely satisfied with the equality of product.

Training : We offer comprehensive training programme for your operators with latest technology to obtain the maximum result.

Service : Our Customer service with engineers strategically located throughout India. Service will be provided in shortest possible time.

FABTECH ENGINEERING

Mfg. & General Suppliers

WTP/ETP/STP/INCINERATOR/RO/UF/ WATER SOLUTION AND MANY MORE

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