

# Smart Composites, Sustainable Solutions

FRP Storage Tanks



**OXYGEN**

Fibrotech LLP

Smart Composites,  
Sustainable Solutions

[www.oxygenplasticare.com](http://www.oxygenplasticare.com)

# About Us

**Oxygen Fibrotech LLP** is a proud extension of Oxygen Plasticare Private Limited, A brand name with over 35 years of proven expertise in rotational moulding plastic manufacturing, Producing Water Tanks / Dustbin / Septic Tank / Mobile Toilets / Biogas Plant / Industrial Products / Custom Moulding. Now stakeholders recognize our OXYGEN brand with quality, excellent service, range of products and innovation. Oxygen Fibrotech LLP emerges as a dedicated venture focused on advanced FRP (Fibre Reinforced Plastic) solutions – blending cutting-edge innovation with environmental responsibility.

Backed by a specialized FRP team with over 30 years of experience, we have setup a robust art of state CNC (Computer Numerical Control) Filament Winding FRP manufacturing infrastructure capable of delivering high-performance, eco-conscious products to a wide spectrum of industries.

Our advance production facility situated near to Ahmedabad (Gujarat) at Indrad (Chatral) on Ahmedabad-Mahesana Highway. Driven by a **vision for a greener future**, by supporting our **mission lies in developing cost-effective, resource-efficient, and environmentally responsible solutions**. We specialize in FRP Tank, decentralized packaged sewage treatment plants (PSTPs) and continues to evolve as an eco-conscious engineering company, shaping a cleaner, safer, and more sustainable tomorrow for people and the planet.

We believe in sustainable progress – Guided by the principle: “**We promote the solution of water to care for the environment and the universe.**” This will help to RECYCLE & REUSE water for optimum use. making them ideal for Industries, Commercial sector, Housing societies, Hotel / Resorts, Institutes, Government / Municipal projects, and many more.

## About FRP material:

FRP (Fiberglass Reinforced Plastic) is a composite material made by combining reinforcing glass Fiber with an isophthalic polymer resin matrix. This combination provides excellent strength, corrosion resistance, light weight and long-term durability

## About CNC Filament Winding FRP Manufacturing:

Advanced Technology for High-Strength Composite, Filament Winding is a computer-controlled composite manufacturing process used to produce high-strength, corrosion-resistant various FRP (Fiber Reinforced Plastic) products. Filament winding involves winding continuous glass fiber strands (rovings) impregnated with resin around a rotating mandrel (mould) in a predetermined pattern and angle. Once the required thickness is achieved, the product is cured, demoulded, and finished.

## Why Choose Our FRP Tanks?

Computer controlled filament winding manufacturing process, universal thickness, strength-to-weight ratio is very high for better strength, light weight, corrosion resistance, durability and ease of application. At **Oxygen Fibrotech**, this technology ensures consistent quality, structural integrity, and precision in every tank we manufacture.

Advance MBBR Technology in PSTP, Leak-Proof & Long-Lasting, With over 30 years of industrial experience backing our technology, Our team collaborates closely with clients to design, install, and maintain systems that not only meet current

regulatory demands but also prepare them for future challenges. Product on time delivery/service ensuring the success of your project from start to finish.

Oxygen Fibrotech LLP followed “**Johkasou**” is a Japanese word meaning “**purification tank**”. Johkasou offers: decentralized solutions that reduce burden on centralized sewage networks. We are committed to maintaining high quality standards, reinforcing our dedication to product durability, safety, and environmental sustainability to deliver cleaner water, greener communities, and a better quality of life.

## Our Product Range:

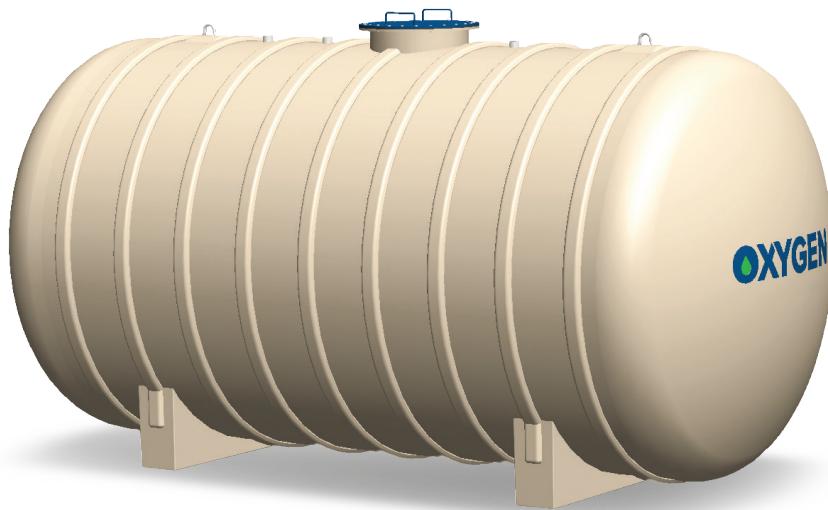
- **FRP Water/Chemical Storage Tanks**  
(Underground and Above ground)
- **Package Sewage Treatment Plant (PSTP)**  
with Tertiary Treatment Plant (TTP-Optional)

- **Anaerobic Septic Tank**  
(Underground and Above ground)
- **Custom Industrial FRP Solutions**

## ● FRP Water Storage / Chemical Storage Tanks (Underground and Above Ground Tanks)

FRP underground storage tanks are used for different types of material storage, made of reinforced plastic resin with composite fiberglass. It is specially used for storing liquid substances such as water and chemicals. We offer a wide range of best quality FRP Underground/Overhead Storage Tanks, which are manufactured with the latest innovative CNC Filament Winding technologies under the guidance of expert team.

FRP technologies having multiple advantages over competing existing industry challenges, designed using high-quality FRP material work for Sturdy, Durable, and Product sustainability for heavy loads. High Strength. Shape: Cylindrical Horizontally Capsule Shape with integral designed Ribbes, FRP relative density is 1.5–2, only 1/4 of MS, but tensile strength is like MS. Food Grade FRP material for potable water, Super smooth interior surface enables easy cleaning and no material build-up, Fittings: Inlet, Outlet, Vent, Manhole with cover, Lifting Lugs for safe handling and installation.



PRODUCT CODE NO.	CAPACITY(Liters)	DIA(mm) $\pm 1.5\%$	LENGTH(mm) $\pm 1.5\%$	MANHOLE(MM)
OFT-10000-WUG	10000	2400	2718	550
OFT-15000-WUG	15000	2400	3858	550
OFT-20000-WUG	20000	2400	5008	550
OFT-25000-WUG	25000	2400	6158	550
OFT-30000-WUG	30000	2400	7304	550
OFT-35000-WUG	35000	2400	8458	550
OFT-40000-WUG	40000	2400	9608	550
OFT-45000-WUG	45000	2400	10758	550
OFT-50000-WUG	50000	2400	11908	550
OFT-55000-WUG	55000	2400	13051	550

\*Dimension variance may  $\pm 1.5\%$

- Above capacities will come in single tank 10KL to 55KL,
- Capacities can be interconnected as per customized requirement up to 200 KL and more.

### Applications:

Water storage, Rainwater harvesting, Firefighting water tanks. Suitable for residential, commercial, industrial and government use.

### Installation key notes:

Site Selection, Excavation, Base Preparation (RCC / PCC), Tank Placement Backfilling (Layer-by-Layer with approved backfilling material with Water Filling), Pipeline Connection, Groundwater / Load Protection, Testing and Commissioning

## ● OXYGEN PACKAGED SEWAGE WATER TREATMENT PLANT (PSTP)

### Smart, Sustainable & Compact Wastewater Treatment Solution

The Oxygen FRP Underground Packaged STP is an advanced, ready-to-install sewage water treatment system designed to treat domestic and institutional wastewater efficiently.

Built using high-strength FRP (Fiber Reinforced Plastic) through filament winding technology, it provides durability, corrosion resistance, and zero leakage, making it a long-term, eco-friendly wastewater solution.

#### Applications

Residential Buildings & Housing Societies, Hotels & Resorts, Schools, Colleges, and Educational Institutions, Hospitals & Clinics, All Types of Industries, Offices & IT Parks, small municipal installations and commercial complexes, where space and maintenance are key considerations.

#### System Description

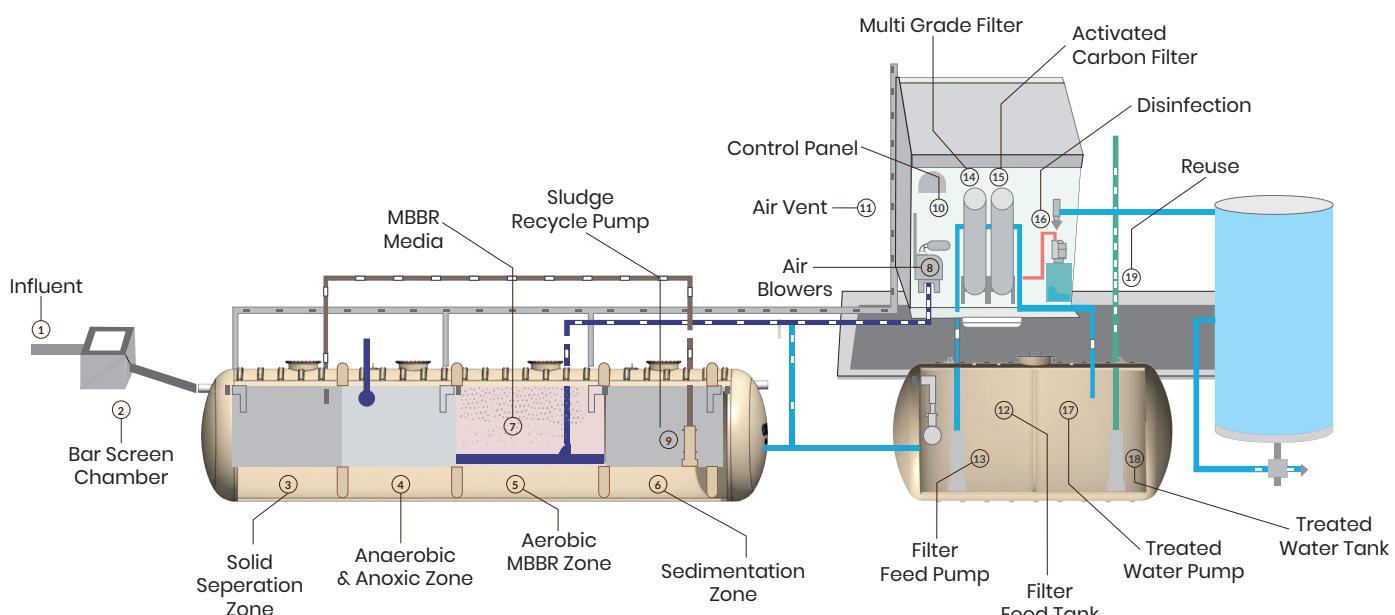
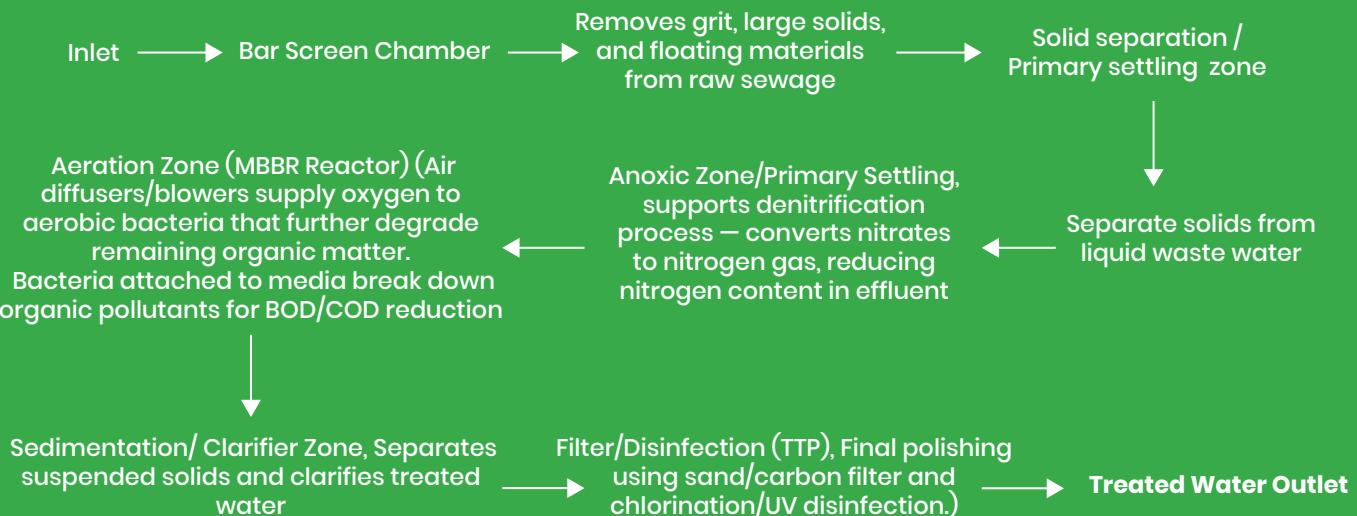
The FRP Packaged STP is a modular underground treatment unit that performs biological and mechanical purification of sewage to produce clear, odor-free treated water suitable for reuse in gardening or flushing.

Using **MBBR (Moving Bed Biofilm Reactor)** is a **biological wastewater treatment process that uses specially designed plastic bio-media** to increase the surface area for **microbial growth**.

The microorganisms attached to the media **biodegrade organic matter**, resulting in efficient removal of **BOD (Biochemical Oxygen Demand)** and **COD (Chemical Oxygen Demand)** from sewage or industrial waste water.

## Process Flow Working Diagram

Typical MBBR-based PSTP includes the following stages:



## System Key Components

### FRP Tank, MBBR Media, Aeration System, Air Blowers, Control Panel, Pump, Filter (TTP)

**How to decide System Capacity**  
(LPCD – Litres Per Capita Per Day)

- Toilet-Urinal (50 lpcd)
- Office/ Educational (80 lpcd)
- Residential/Industries (150 lpcd)

### PSTP Integration with Tertiary Treatment Plant (TTP)

Advanced Polishing Unit for Sewage & Greywater Reuse

The Oxygen FRP Tertiary Treatment Plant (TTP) is a final stage polishing system used after the secondary (biological) treatment process in an PSTP. The TTP upgrades secondary-treated wastewater into high-quality, clear, and disinfected water suitable for reuse in gardening, flushing, cooling towers, and industrial processes.

For complete reuse of treated wastewater, MBBR-based STPs can be combined with

Tertiary Treatment Plant (TTP) like:  
**Pressure Sand Filter (PSF)** – Removes residual suspended solids, fine particles, and turbidity,

**Activated Carbon Filter (ACF)** – Adsorbs organic compounds, odor and color from treated water, UV or

**Disinfection (Optional)** – Destroys harmful bacteria and pathogens, This ensures clear, odor-free, and reusable water for non-potable applications.

## Typical Performance Parameters

PARAMETER	INLET INFLUENT	OXYGEN PSTP	PSTP WITH TTP
pH	6.0 – 8.0	6.0 – 0.8	6.0 – 0.8
BOD (mg/ltr)	250 – 300	<20	<10
COD (mg/ltr)	500 – 550	<100	<50
TSS (mg/ltr)	200 – 250	<50	<20
TN (mg/ltr)	40 – 50	10	10
Fecal coliform	10000	<100	<100

While a standard PSTP removes BOD/COD 85–90% of pollutants, Tertiary Treatment refines it further to achieve more than 90% reduction: It is thus an essential add-on for projects requiring water reuse.

## PSTP WITH SMART SYSTEM

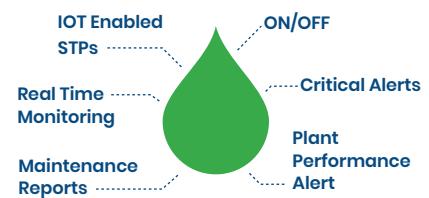
A smart system for checking live BOD/COD levels in a sewage treatment plant uses **real-time online analysers and sensor networks** integrated with an intelligent monitoring and control platform.

### Parameters:

These multi-parameter probes can simultaneously measure BOD, COD, Total Suspended Solids (TSS), pH, Dissolved Oxygen (DO), temperature, and other relevant parameters. **Optimize Operations, Predict Outcomes, regulatory compliance, Reduce Costs**



### SMART STPs



## ● Anaerobic FRP Septic Tank (Underground and Above Ground Tanks)

### Safe, Strong, and Sustainable Wastewater Solution

The Oxygen FRP Underground Septic Tank is an advanced alternative to traditional RCC and brick masonry tanks. Manufactured using Fiber Reinforced Plastic (FRP) through filament winding technology.

#### Applications:

Individual Houses / Bungalows, Housing Societies, Resorts, Hotels & Farmhouses, Institutions, Hospitals & Schools, Construction & Labor Camps, Remote or Off-grid Areas. They are ideal for domestic, commercial, government and institutional wastewater, ensuring safe and hygienic waste disposal.

#### Capacities:

10 KLD to 55 KLD in Single Tank, then customizable up to 200 KLD or more

#### Technical Advantages

100% Leak-proof & Corrosion-resistant, Lightweight & Easy to Transport & Install, Maintenance-free, Long-lasting Construction, Minimum Civil Work Required – Ready-to-Use Design, High Strength-to-Weight Ratio

#### Working Principle:

The FRP Septic Tank operates through key stages:

#### Anaerobic Digestion Settling Zone:

In the chamber, bacteria break down the organic matter under anaerobic conditions, reducing sludge volume and odor.

#### Sedimentation/Clarification & Outlet Zone:

The relatively clear effluent moves to the final chamber and exits through the outlet pipe for further soak pit treatment or dispersion.

#### Testing & Quality Assurance

Pneumatic Leakage Test, Dimensional Accuracy Check, Laminate Strength Test (flexural and barcol hardness test), Visual Inspection for Finish & Fittings, each tank is factory-tested before dispatch to ensure 100% performance reliability.



### Why Choose OXYGEN FRP Septic Tanks?

Manufactured using CNC-controlled Filament Winding Technology  
Quick Installation, Minimum Civil Work, Long Life FRP tank  
Eco-friendly and Maintenance-free Solution

### Installation key notes:

1. Excavate the pit as per tank dimensions (leave 300–500 mm clearance)
2. Prepare a level RCC or PCC base (150–200 mm thick).
3. Lower the tank using lifting lugs or straps – never drag or roll.
4. Connect inlet/outlet/vent pipes with proper sealing. Backfill with 4.5 to 12 mm grit in layers while
5. Simultaneously filling the tank with water to balance pressure. Ensure no heavy load or vehicle movement directly above the tank unless protected by an RCC slab. (Refer detailed FRP underground tank installation guide)

# Product Categories

## FRP Underground Water Storage Tank



**Capacity:**  
10,000 L to 55,000 L

**Diameter:**  
2400 mm

**Length:**  
Customizable

**Color:**  
Ivory cream

**Application:**  
Water storage, Rainwater harvesting, fire water tanks, etc.

**Shape:**  
Cylindrical Horizontally Capsule

**Fittings:**  
Inlet, Outlet, Vent, Manhole with cover

**Material Used:**  
FRP with isophthalic resin

## Aerobic Package Type Sewage Water Treatment Plant (PSTP)



**Capacity:**  
10 KLD to 200 KLD and More

**Inlet/Outlet sizes:**  
4' / 6" customizable

**Chambers:**  
3 or 4 compartments

**Accessories:**  
Manhole cover, Air blower, Submersible pump, Control panel, Tank installation accessories, Internal Piping with PP Media

**Application:**  
Residential, Commercial, Industrial Sewage Treatment, Government Projects, etc.

**Features:**  
Odor-proof, Leak-proof, UV resistant

## FRP Chemical Storage Tank



**Capacity:**  
10,000 L to 55,000 L

**Diameter:**  
2400 mm

**Length:**  
Customizable

**Color:**  
Ivory cream

**Application:**  
Various Chemical Industries

**Shape:**  
Cylindrical Horizontally Capsule Mounted

**Fittings:**  
Inlet, Outlet, Vent, Manhole with cover

**Material Used:**  
FRP with isophthalic resin, FRP with isophthalic resin, UV resistant

## Anaerobic Septic Tank (AST)



**Capacity:**  
10,000 L to 55,000 L

**Diameter:**  
2400 mm

**Length:**  
Customizable

**Color:**  
Ivory cream

**Application:**  
Residential, Commercial, Industrial Sewage Treatment, Government Projects, etc.

**Shape:**  
Cylindrical/Horizontally Capsule/Mounted

**Fittings:**  
Inlet, Outlet, Vent, Manhole with cover

**Material Used:**  
FRP with isophthalic resin

## FRP Above Ground Water Storage Tank



**Capacity:**  
10,000 L to 55,000 L

**Diameter:**  
2400 mm

**Length:**  
Customizable

**Color:**  
Ivory cream

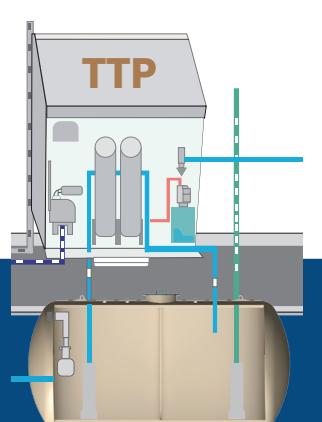
**Application:**  
Water storage, Rainwater harvesting, fire water tanks, etc.

**Shape:**  
Cylindrical Horizontally Capsule Mounted

**Fittings:**  
Inlet, Outlet, Vent, Manhole with cover

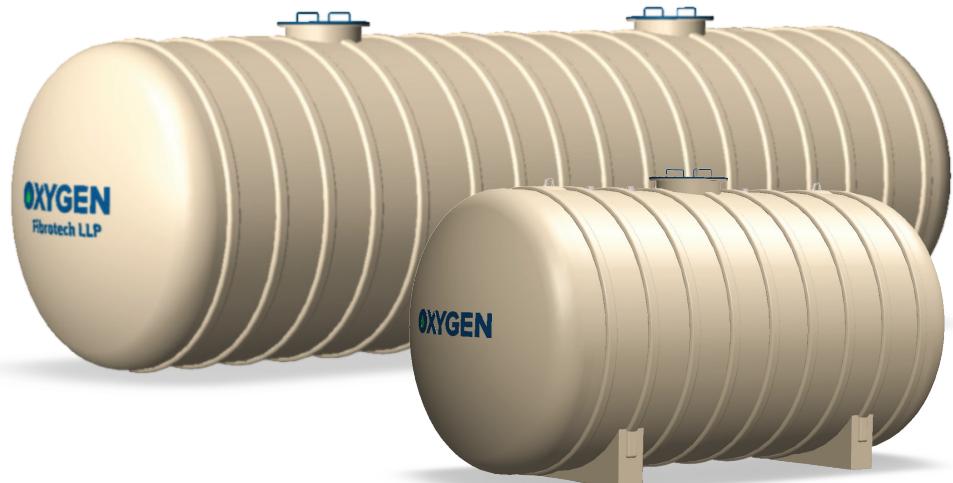
**Material Used:**  
FRP with isophthalic resin, UV resistant

## Tertiary Treatment Plant (TTP)



- Pressure Sand Filter (PSF)
- Activated Carbon Filter (ACF)
- Disinfection (Optional)

# FRP Storage Tanks



**Water/Chemical Storage  
Tank (Under & Above Ground)/  
Septic Tank/STPs & Custom Moulding**



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## Head Office

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## Factory

Plot no. 6, Survey no. 180, Pavan Project Phase-4, Opp. Torrent Pharma, At. Indrad, Ta. Kadi, Dist. Mehsana-382715