



Clean

**Water** for All,  
A Future for Everyone.





## INDUSTRIAL SALT-AGUA MEMBRANES SERIES

Salt Agua's industrial Reverse Osmosis (RO) membranes offer 99% salt rejection, exceptional durability, and energy-efficient water treatment. Designed for both high- and low-pressure systems, they are ideal for industries requiring high-purity water by effectively removing salts, TOC, silica, and other contaminants. Fully tested and backed by our expert team, these membranes deliver reliable, cost-effective, and trouble-free performance.

**LE-8040**  
**BW-8040**  
**ULP-8040**  
**SW-8040**



**LE-4040**  
**BW-4040**  
**ULP-4040**

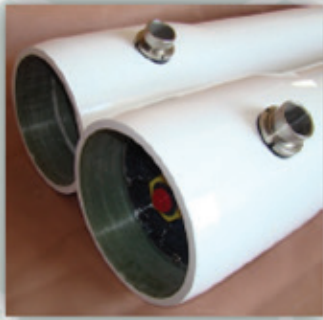


**ULP-4021**



# COMPONENTS :

Anayra Water Solutions offers a complete range of high-quality components designed to optimize the efficiency and performance of water treatment systems. Built for durability and precision, our products are ideal for a wide range of industrial and commercial applications, ensuring reliable and sustainable water management.



RO HOUSING



MEMBRANES: UF & RO



MBR MEMBRANE



CENTRIFUGAL PUMP



VESSELS



DISTRIBUTION SYSTEM



ROTAMETER



AUTO MULTIPORT VALVE



MULTIPORT VALVE



RESIN



CARTRIDGE



PRESSURE BOOSTER SYSTEM



DOSING PUMP

## Effluent Treatment plant (ETP)

Anayra Water Solutions' Effluent Treatment Plants (ETPs) are engineered to ensure the safe and effective treatment of wastewater before it is discharged into the environment. Our plants are designed to protect local ecosystems, preserve water sources, and safeguard public health by removing harmful pollutants, chemicals, and contaminants from wastewater.

Our multi-stage treatment process begins with preliminary screening to eliminate large debris and solid particles. Advanced stages then target finer impurities, delivering purified water that can safely re-enter natural water systems.

By prioritizing environmental sustainability and community well-being, Anayra Water Solutions' ETPs play a vital role in maintaining the balance of fragile ecosystems while ensuring a cleaner and safer environment for all.

## Sewage treatment plant (STP)

### Eco-friendly, Efficient Systems for Tailored Wastewater Treatment, including SBR, MBR, and BIOROCK

At Anayra Water Solutions, we understand the critical importance of sewage treatment for the safe and environmentally responsible disposal of wastewater from domestic and commercial sources. Our diverse range of sewage treatment plants (STPs) is meticulously designed to meet the specific needs of our clients. By evaluating factors such as population size, daily flow rates, and the type of wastewater, we ensure accurate sizing and exceptional system performance.

Our process begins with raw sewage flowing through gravity from various units, starting with a bar screen to filter larger debris and solids. The wastewater then enters an aeration tank, where aerobic microbes efficiently treat the water. Finally, the treated sewage and biomass move to an integrated clarifier, where gravity separates solid waste from the treated water.

By customizing our STP designs to suit individual requirements, we deliver efficient, eco-friendly, and cost-effective wastewater management solutions for projects of any scale.

### Types of Sewage Treatment Plant (STP) Designs:

#### **SBR (Sequencing Batch Reactor):**

The Sequencing Batch Reactor (SBR) operates in sequential batches, offering enhanced control and optimization at each treatment stage. Based on the activated sludge process, SBR is highly adaptable and suitable for various applications.

#### **MBR (Membrane Bio Reactor):**

Membrane Bio Reactors (MBR) integrate membrane filtration with biological treatment, providing efficient wastewater management and high-quality filtration for diverse applications.

#### **MBBR (Moving Bed Biofilm Reactor):**

The Moving Bed Biofilm Reactor (MBBR) uses free-floating media to promote the growth of microorganisms, which effectively break down organic matter. This system is efficient, low-maintenance, and reliable.

#### **Activated Sludge Process:**

This widely used biological treatment method employs a diverse microbial community to degrade pollutants in an aeration tank, ensuring cleaner, treated water.

#### **Electro Coagulation System:**

The Electro Coagulation System applies electrochemistry principles to remove contaminants. Electrical currents trigger chemical reactions, causing particles to aggregate and making them easier to remove.

## Non-Electric Sewage Treatment: BIOROCK

Anayra's BIOROCK systems offer an innovative, compact, and energy-free wastewater treatment solution. Raw sewage enters a primary tank for organic solids' separation and breakdown, moves through an effluent filter, and finally reaches the BIOROCK unit. The unit combines aerobic digestion and filtration for effective treatment.

BIOROCK's specialized media support the growth of essential bacteria, ensuring efficient sewage treatment with minimal maintenance, low operational costs, and extended desludging intervals. This makes BIOROCK a sustainable, cost-effective choice for wastewater management.

## Ultra filtration system

### Anayra's Ultra Filtration System: Advanced Water Purification for High-Purity Needs

Anayra's Ultra Filtration (UF) System employs cutting-edge membrane technology to deliver superior water purification. With pore sizes as small as 0.01 microns, our UF system effectively removes suspended particles, microorganisms, colloids, silt, enzymes, and endotoxins, ensuring the highest purity of water for industrial and residential applications.

Unlike conventional multi-media filters that capture only particles larger than 10 microns, Anayra's UF system goes a step further, filtering out even protein macromolecules. The system operates in both direct and "cross-flow" modes, enhancing filtration performance and prolonging its lifespan through efficient high-speed flushing.

#### Key Advantages of Anayra's UF System:

- Advanced filtration technology delivering high flux performance
- Effective removal of colloids, microorganisms, and endotoxins
- Low maintenance for efficient and reliable operation
- Extended system lifespan with regular high-speed flushing
- Modular, space-saving design for cost-effective installations



Anayra's UF systems provide dependable, efficient water purification, making them an ideal choice for a wide range of applications requiring high-quality, purified water.



## Water treatment plant (WTP)

### Addressing the Growing Need for Water Purification with Expertise

The increasing levels of water contamination have significantly elevated the demand for advanced water purification solutions, particularly for essential industries and human consumption.

At Anayra Water Solutions, we understand the importance of specialized water treatment to safeguard industrial systems and ensure efficient, high-quality outcomes. Our mission is to deliver comprehensive solutions for all water treatment challenges, enabling businesses and communities to access clean and safe water.

With a multi-faceted approach, Anayra is equipped to handle even the most complex water purification requirements, catering to diverse industries and domestic needs. Our proven expertise is reflected in the successful execution of projects with capacities of up to 10 million litres per day (MLD).

Anayra Water Solutions: Driving innovation and reliability in water purification for a sustainable future.

## Electro Deionization (EDI) :

### Anayra's Electro Deionization (EDI) System: A Cutting-Edge Solution for Ultra-Pure Water

Anayra Water Solutions' Electro Deionization (EDI) system is a state-of-the-art innovation that combines the advantages of electro-dialysis and ion-exchange resin deionization to deliver ultra-pure, desalinated water with unmatched precision and sustainability.

The core of Anayra's EDI system lies in its advanced electro-dialysis process, which utilizes an electric current to effectively remove ionic contaminants from water. This process is further enhanced by the integration of ion-exchange resins, enabling continuous water purification without the need for chemical regenerants.

#### Key Benefits of Anayra's EDI System:

- **Sustainable Operation:** Minimal chemical usage ensures eco-friendly performance.
- **Cost-Effective Purification:** An efficient solution for industrial applications.
- **Exceptional Performance:** Consistently produces ultra-pure water to meet demanding standards.



## Zero Liquid Discharge (ZLD)

### Anayra's Zero Liquid Discharge (ZLD) Systems: A Sustainable Water Management Solution

Anayra Water Solutions' Zero Liquid Discharge (ZLD) systems are designed to recover and recycle water, salts, and other valuable resources from wastewater streams, creating a closed-loop system with no liquid discharge. This advanced technology ensures full compliance with strict environmental regulations while promoting sustainable resource management.

Using a combination of cutting-edge physical, chemical, and thermal processes, Anayra's ZLD systems maximize water reuse and minimize waste. By significantly reducing freshwater withdrawal and wastewater disposal, these systems are particularly beneficial for industries operating in water-scarce regions or those prioritizing sustainability and resource efficiency.

#### Key Benefits of Anayra's ZLD Systems:

- Minimized environmental impact through closed-loop operation
- Reduced reliance on freshwater resources
- Cost savings in wastewater disposal and resource recovery
- Full compliance with stringent environmental standards



As industries increasingly focus on sustainability, Anayra's ZLD systems offer an innovative solution for circular resource management, enabling businesses to minimize their ecological footprint while enhancing operational efficiency.

## Reverse Osmosis Plant

### Anayra's Reverse Osmosis (RO) System: Advanced Water Purification for Every Need

Anayra Water Solutions' Reverse Osmosis (RO) system offers exceptional water purification, turning even the most challenging water sources into pure, clean water. Designed for both drinking and industrial applications, it utilizes cutting-edge membrane technology and integrated pre-filtration to remove impurities with precision and efficiency.

#### Advanced RO Membrane Separation: Versatile and Reliable

Anayra's RO systems employ advanced membrane separation technology to treat a wide range of water sources, including those contaminated by chemical, biological, or saline pollutants. From brackish water to seawater, our RO systems ensure superior purification, meeting the highest standards for drinking water and critical industrial applications.

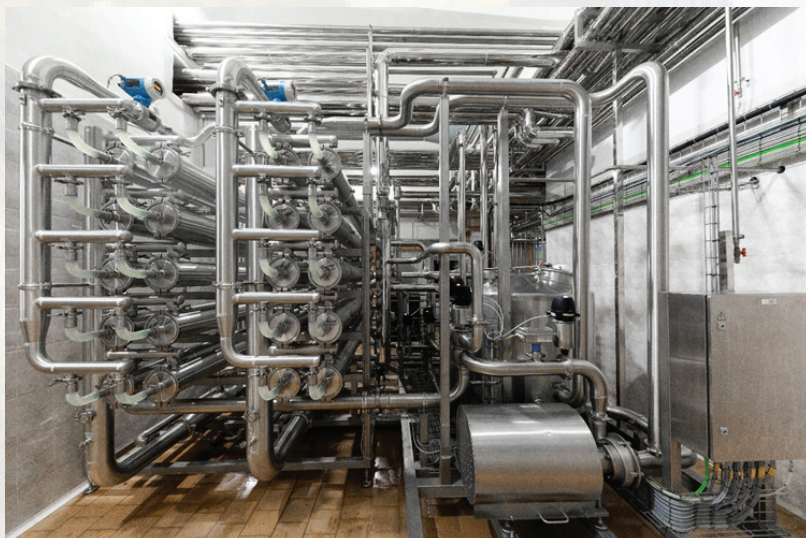
#### How It Works:

The system combines pre-treatment stages—such as sediment and carbon filtration—with reverse osmosis membranes, ensuring thorough removal of contaminants. This multi-stage process guarantees consistently high-purity water, regardless of the source or initial quality.

#### Key Benefits of Anayra's RO Systems:

- Efficient removal of impurities and contaminants
- Adaptability to a variety of water sources, including seawater
- Reliable performance for household and industrial applications
- Advanced pre-filtration for optimal system longevity

Whether for safe drinking water or demanding industrial processes, Anayra's RO systems provide a dependable solution for achieving the purest water possible.



## Resin Ion Exchange Technology

### Description

Polymex Resin is a high capacity strongly acidic cation exchanger in bead form. It is based on cross-linked polystyrene and has a gel structure. The resin contains sulphonic acid functional groups. It is supplied moist in the sodium form.

### Applications

Polymex Resin is used most widely in sodium form for water softening application. It can be used also in twostage de-ionising as the cation exchanger in the hydrogen cycle.

### Polymex c25 Na Strong Acid Polystyrene-type Cation Resin Polymex C25Na is a strong acid polystyrene-gel type cation resin.

### Features:

- High exchange capacity
- High mechanical strength
- Uniform particle with good hydraulics characteristic
- Good Selectivity
- Good Thermo-tolerant characteristic
- Excellent physical and chemical stability

#### Specification:

Polymer structure	: Styren-DVB
Functional group	: HSO <sub>3</sub> -
Appearance	: Light brown bead
Ionic form	: Na <sup>+</sup> type
Total exchange capacity	: ≥ 4.5 mmol/g(dry) (Na <sup>+</sup> type)
Total exchange capacity	: ≥ 1.9 mmol/ml (Na <sup>+</sup> type)
Moisture content	: 46-50% (Na <sup>+</sup> type)
Density	: 1.25-1.29 g/ml (Na <sup>+</sup> type)
Shipping weight	: 0.77.087 g/ml (Na <sup>+</sup> type)
Particle size	: 0.315-1.25 mm ≥ 95% <0.315mm ≤1%
Effective particle size	: 0.40-0.60mm
Uniformity coefficient	: ≤1.7
Attrition rate	: ≥90%
Swell, Max.	: Na <sup>+</sup> -H <sup>+</sup> 10%



#### Operation Parameters:

Operating temperature, Max.	: 120 °C
Bed depth, Min	: 800mm
Service flow rate	: 5-25BV <sup>+</sup> /h
Service flow rate	: 40 m/h
Regenerant	: NaCl HCl H <sub>2</sub> SO <sub>4</sub>
Consumption (as 100%)	: 80-220g/l 50-150g/l 80-240g/l
Concentration	: 5-10% 5-8% 0.7-6%
Flow rate	: 2-8 BV <sup>+</sup> /h 2-5 BV <sup>+</sup> /h 2-20BV <sup>+</sup> /h
Contact time, Min	: 30 min
Slow rinse	: 2 BV <sup>+</sup> (Regeneration flow)
Fast rinse	: 4-8BV <sup>+</sup> (Service flow)

Note: 1 BV = 1 m<sup>3</sup> media/1m<sup>3</sup> resin

## Membrane Technology

Manufactured to international quality standards, Salt Agua membranes ensure outstanding consistency, precision, and reliability-making them the top choice for businesses looking for optimal, trouble-free water treatment solutions.

### Toray, dow and CPA Hydranautics membranes available



## Water ATM

Anayra Water Solutions presents the Water ATM, a cutting-edge and customizable solution for accessible, clean, and affordable drinking water. This user-friendly system allows individuals to obtain fresh water by inserting a coin or making an online payment. Ideal for public spaces, such as Nagar Palika areas, community centers, and commercial establishments, our Water ATM can be designed to suit your specific needs and branding requirements. Personalize the machine with your logo, colors, and messaging to enhance your brand presence while ensuring convenient access to safe, purified water. With advanced filtration technology, Anayra Water Solutions guarantees clean, pure water with every use, promoting both sustainability and a healthier, eco-friendly environment.



## Swimming pool filtration

The swimming pool filtration process is a critical aspect of maintaining clean, safe, and clear water. It begins with skimming, where surface debris, such as leaves and insects, are removed using a skimmer basket or automatic surface skimmers. This prevents larger particles from sinking to the pool floor and becoming harder to clean. Water is then drawn into the filtration system, where it passes through one of several types of filters—commonly sand filters, cartridge filters, or diatomaceous earth (DE) filters. Sand filters use a bed of specially graded sand to trap dirt and particles, while cartridge filters employ pleated filter elements that capture smaller debris, and DE filters utilize a fine powder to remove even the smallest particles.

The water is continuously circulated by a pump, which pushes it through the filter and returns it to the pool through return jets. This circulation ensures that the pool water is thoroughly filtered and that all areas of the pool are cleaned regularly. Alongside filtration, chemical treatment is integral to pool maintenance. Sanitizers such as chlorine or bromine are added to disinfect the water by killing harmful microorganisms, while pH balancing agents maintain water chemistry at optimal levels, preventing scale buildup and ensuring the effectiveness of sanitizers.

To maintain filter performance, periodic backwashing is required for sand and DE filters. This process reverses the water flow, flushing out trapped debris from the filter media and restoring its filtration efficiency. Regular maintenance is essential for optimal filtration, including cleaning or replacing filter media, inspecting and servicing the pump, and performing routine chemical testing and adjustments. With proper filtration and maintenance, the pool remains clear, healthy, and safe for swimmers.

Zero Liquid



# Clientele



# About ANAYRA

Anayra Water Solutions has over 12 years of experience in providing advanced and sustainable water treatment solutions. We have successfully served a diverse range of clients across industries, delivering reliable and efficient water management systems. Our expertise, combined with a commitment to innovation, has helped businesses and communities achieve clean and safe water solutions. With a track record of excellence, we continue to lead the way in water treatment, ensuring a sustainable and water-efficient future for all.



+91 9998280231



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



+91 86519 35650



[info@anayrawatersolutions.com](mailto:info@anayrawatersolutions.com)



A-612, Titanium Heights, Corporate Road, Prahladnagar, Ahmedabad, Gujarat 380015