



Aapaavani  
Environmental Solutions Private Limited

SOLUTIONS FOR A BETTER TOMORROW...



## INTRODUCTION

The earth is the only planet to foster an environment that harbours life. Earth was believed to have been born four billion years ago and evolved gradually into the beautiful place that we live in. It is abundant in greenery and resplendent in resources.

Yet, today our planet is facing challenges that were unheard of even a century ago. Pollution and environmental degradation endanger our well-being. Freshwater, the vital ingredient of life, is becoming scarce. Contamination of water resources is becoming a perennial threat to our survival.

The time has come for course correction. Wise decisions that we make today can reverse the damage. Smart moves that we implement with purpose can herald a better tomorrow. We need to act with vision and determination. At Aapaavani Environmental Solutions, we are passionate in our mission to lead the way in providing technological solutions to conserve freshwater. We invite you to join in our quest to restore the natural purity of Mother Earth.

## ABOUT US

Aapaavani Environmental Solutions Private Limited is a creator of innovative solutions for environmental pollutants that plague urban living. The company is founded by a group of highly qualified professionals in the relevant streams of environmental and chemical engineering.

We harness our technical prowess to understand contemporary challenges and devise unique solutions in the environment sector. Plant and machinery which are conceptualised, designed, manufactured and installed by us stand testimony to our track record as a provider of viable and sustainable solutions.

Our portfolio includes turnkey based industrial wastewater treatment, sewage treatment, groundwater treatment, environmental forensics and renewable energy projects. We are known for our customised and sophisticated solutions that meet customer requirements in practical ways.



## WASTEWATER TREATMENT PLANT





## **ESTAPRO™** MEMBRANE BIO REACTOR (MBR)

Our flagship **estapro** product offers extraordinary advantages over conventional wastewater treatment system. We use advanced MBR technology which is rapidly gaining acceptance globally as the foremost wastewater treatment solution.

Unlike conventional modules, which rely mainly on settling of sludge for water purification, in MBR module, a synthetic permeable barrier is inserted in the end stage of wastewater treatment. This barrier is specially designed for suctioning purified water through completely eliminating contaminants at the molecular & ionic level using ultrafiltration & microfiltration process.

The hollow fibre membrane used in MBR has excellent performance of hydrophilic, high porosity, water flux, high mechanical strength, long term sustainability and extended service life. The system yields clean water which is far superior to conventional sewage treatment plants.

**estapro** MBRs can be used in treating various industrial and municipal wastewater of variable quality. Superior effluent quality is achieved to satisfy stringent water discharge standards. It requires less space, almost zero maintenance and can be easily scaled up to meet future enhancements.

The initial investment also is nearly on par with conventional modules.

MBR is effective and proven to remove faecal coliform, E. Coli and other harmful pathogens from grey and black water. Contemporary studies indicate that it is the one of the most reliable methods for preventing spread of Covid-19 virus through wastewater. The product features include key parameter sensors such as dissolved oxygen, integrated with air flow transmitters, control valves and variable frequency drive for blower to create a real time operational control system.

### ADVANTAGES OVER CONVENTIONAL TREATMENT

- World class MBR technology with micron filtration.
- Easily maintains MLSS.
- Compact container based design (uses one third space).
- No settling required.
- Meets PCB norms.
- Nutrient removal achieved easily.
- Odourfree treated water.
- Labour saving - completely automatic.
- Eliminates all microbes including Covid-19 virus.
- GSM based reporting facility.





## AUSTENPRO™ EFFLUENT TREATMENT PLANT

Industrial effluent treatment is a challenging exercise requiring specialised knowledge. The nature of effluent varies from industry to industry. Hence there is no fixed method to treat it. **austenpro** effluent treatment plants are premium customised products offered by us to address the needs of industries.

Before we install the plant, we undertake extensive treatability studies to understand various parameters to be treated. The effluent treatment unit is then specifically designed for the needs to be met under these parameters. The unit is also configured to meet stringent statutory requirements pertaining to the industry.



### UNIQUE FEATURES

- Customised to suit industry- specific effluent water quality.
- Advance treatability study.
- Treated water quality meets stringent statutory requirements.
- Customer customization options.

We design, manufacture, supply and commission treatment plants for various types of industrial effluents like textile, chemical, distillery, paper and pulp, aluminium by combining physico-chemical treatment followed by tertiary treatment for the removal of inorganic solids, heavy metals and finer suspended solids.









## AUSTENFLOW

### CAR WASH WATER RECOVERY SYSTEM

Car wash is an important and essential service in urban areas. It generates huge amounts of wastewater containing high concentration of pollutants like automobile oil and grease, dust and cleansing agents. Water being a scarce resource in the metros and urban areas, car wash units can maximise their potential through the simple means of installing our Automatic Car Wash Water Recovery System.

Our **austenflow** is a compact space saving unit designed for space starved urban settings. It delivers clean recycled water using sophisticated MBR technology, which may be reused for vehicle wash at lesser cost than other sources of water. Apart from cost, it also guarantees higher degree of self reliance for ready availability of water, which is a primary ingredient for this water intensive industry.

## ENVIRONMENTAL FORENSICS

### GROUNDWATER CONTAMINATION REMEDIATION

Groundwater is a natural source of water widely depended upon for meeting human needs. Wells, springs and ponds are a common source of water in semi urban and rural areas. Quality of water from these sources differs from place to place. Impurity, contamination and the presence of pollutants are common issues faced in using groundwater for human consumption. Groundwater remediation is the process of tracing the root cause of such problems and providing long lasting solutions to derive clean potable water.

We provide comprehensive remediation solutions to make groundwater safe for humans and minimize the negative impact that contaminants have on the environment. We provide both in-situ (on-site) and ex-situ (off-site) remediation solutions based on sound scientific data gathered from undertaking geological studies, hydrological mapping and environmental toxicology studies.

## UNIQUE FEATURES

- Efficiently retrieves more than 90% of the wash water.
- Low energy input, no costly chemicals used.
- Sophisticated membrane technology.
- Space saving, no noise, no odour.
- Capacity - 2000 LPD (10 cars per day) to 10000 LPD (50 cars per day).
- Minimal and unskilled operation.

## UNIQUE FEATURES

- In-situ (on-site) and ex-situ (off-site) remediation.
- Advance geological studies, hydrological mapping and environmental toxicology studies.
- Long lasting solution to deliver potable water.



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