

Modular Packaged STP Plants

Ultra Small Foot Print Skid Based Installation



Silent Operation



Smallest Footprint



No Bacteria, No Smell



Automatic Disinfection



Lowest Running OPEX Costs



Simple ON / OFF Operation



Non-Toxic, Non-Leaching Sludge



Re-Cycle & Re-Use Treated Water

Conventional STP Limitations

- A Very Large Foot Print Required whether its- MBBR, SBT or ASP
- Unwanted micro-organisms produce toxic gases and bad smell
- Skilled Staffing Issues
- Batch-Process and manually operated plants
- Lot of sludge handling - Hazardous, Toxic & Leachate forming sludge
- MLSS is vulnerable- can treat only certain compounds mixed with sewage water
- Human health hazards - Increased worker risk of infection

How We Treat Sewage Water

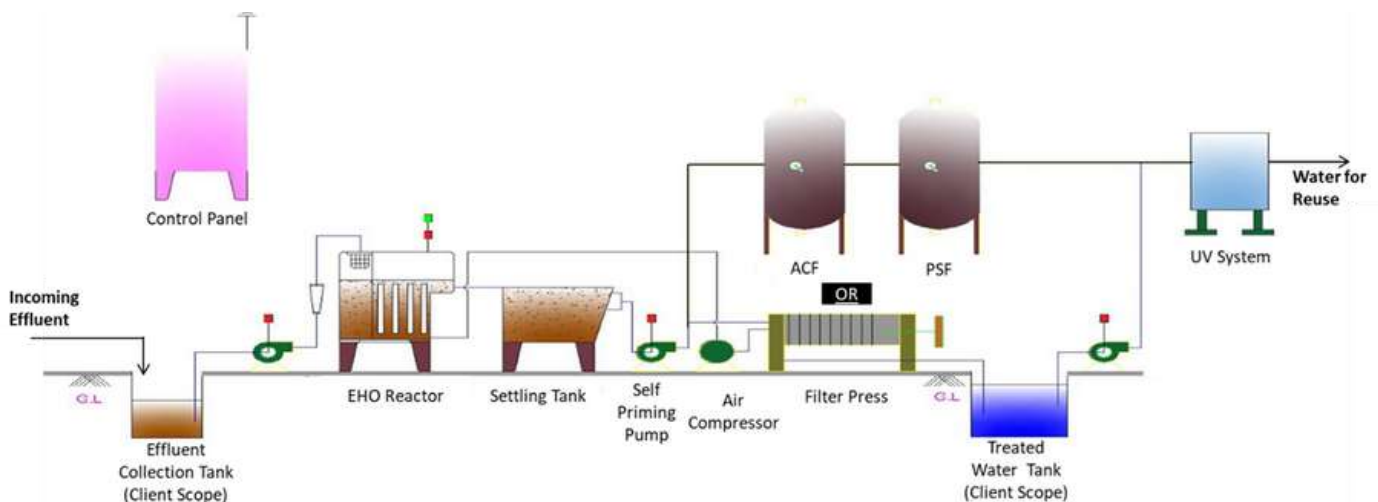
Futura STP plants are **fully modular, extremely compact, fully integrated skid based and self-contained, fully automated and a single-piece packaged system for onsite sewage water treatment.**

Our electrochemical process involves the electrolytic oxidation of a sacrificial anode, liberating metal ions that generate coagulants. These coagulants destabilize pollutants and emulsions, resulting in the formation of flocculants that rise to the surface for removal.



The STP is designed as a continuous process and so are the downstream processes for sludge separation, ozonation and tertiary treatment of the semi-treated water. For recycle and re-use of STP treated water for non-contact purposes, an Ultra-Filtration (UF) followed by UV is provided.

Our Enhanced Dissolve Air Flotation (DAF) technology efficiently removes the floating sludge layer. Alternatively, the entire sludge slurry can be processed through either a plate and frame Filter Press or a Dewatering Screw Press.



Representative process flow diagram of a typical FUTURA STP

Final output from our STP is comparable in quality to regular utility water. It can be directly reused for various purposes such as cooling water systems, irrigation, and boiler requirements. Our state-of-the-art modular STP's are tailored to each clients' needs, offering eco-friendly and legislation-compliant solutions that are both easy to install and operate while being economical to maintain. Our STP reactor's unique design eliminates the need for internal mechanical moving parts, except for pumps, requiring minimal maintenance and supervision, thus simplifying its operation. At FUTURA, we prioritize environmental compliance and ensure adequate protection for our customers' sites.

Derived Efficiencies

Parameters	INLET to STP	OUTLET from STP
pH	6.50 - 8.50	6.50 - 8.50
BOD _{ppm}	< 650	< 10
COD _{ppm}	< 1500	< 30
TSS _{ppm}	< 350	< 5
Oil & Grease _{ppm}	< 50	< 1
Ammoniacal Nitrogen _{ppm}	< 50	< 1
Fecal Coliform _{MNP/100 ml}	< 1000	< 50

Unique Features and Applications

While STP systems and treatments are typically uncomplicated and direct, our STP process technology employs oxidation process technology, which enables it to address a variety of unconventional sewage generation applications. A few examples of such applications are outlined below:

- Sewage generation from Sulphur based pesticides and herbicides facilities
- Heavy Metals (like Zinc, Molybdenum, Arsenic, Copper etc.)
- Colloids and Total Suspended Solids (TSS) with presene of Silica & Fine Clay
- Healthcare facilities containing blood and / or blood serum / bio-hazards
- Domestic effluent with processed food / canteen waste streams laden with Fats, Oil and Grease
- Bacteria (E. coli, Selenium, Cyanotoxins) and Algae (HAB) Removal
- Sewage combined with Cooling Tower Blow Down
- Residual color and odor from domestic water
- Where Fully Automated, Simple and Continuous Treatment of Sewage Required

Capacity & Models

Futura STP and STP packaged systems are available in a range of capacities, starting from 1000 LPH and extending up to 1000 KLPH. These systems are custom-designed using thermoplastic composites or MSEP (with SS304 as an option). Our STP systems are fully integrated and skid-mounted, with a modular design that incorporates a PLC/micro-controller programmed control panel box.

Additionally, the STP's continuous process design requires **significantly less floor space (up to 90% less)** compared to conventional systems, thanks to the low residence time of treatment. It's worth noting that FUTURA STP plants can be constructed and erected as vertical steel structures or can be installed on RCC building terraces, among other possible options.

Futura STPs exhibit the potential to achieve high removal efficiencies of color, chemical oxygen demand (COD), and biochemical oxygen demand (BOD). Moreover, they offer a more efficient treatment process compared to traditional biological treatments, which are limited by specific conditions and struggle to treat wastewaters with high toxicity, xenobiotic compounds, and varying pH levels. The Futura EHO process presents a viable solution for treating multifaceted wastewaters, including industrial, agricultural, and domestic sources.

About Us

Futura as the name implicates- technologies and advancements of the future. We are ex-industry stalwarts with the purpose and vision of bringing specialized knowledge, value added products, services and solutions to you which will help your businesses grow and be profitable & sustainable.

Many of our process technologies are a result of Innovation, Process Development, Research and Strategic Technology Tie-ups with International Companies with R&D facilities having core expertise in the subject field. We have associations with many industry leading solutions and service providers to provide and end-to-end and seamless delivery for your needs.

Why Us

Having already supported over 120+ customers long term, we specialize in what we do. All our core capabilities, products and solutions are backed by our own knowledge and are developed inhouse and hence we are not dependent on any vendor or service provider to commit and deliver.

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