



ASIA GREENTECH (MALAYSIA) SDN.BHD

Asia Greentech (Malaysia) Sdn. Bhd. is an experienced provider of integrated industrial process and environmental engineering solutions for construction-based and project-driven developments across the industrial, infrastructure, and manufacturing sectors.

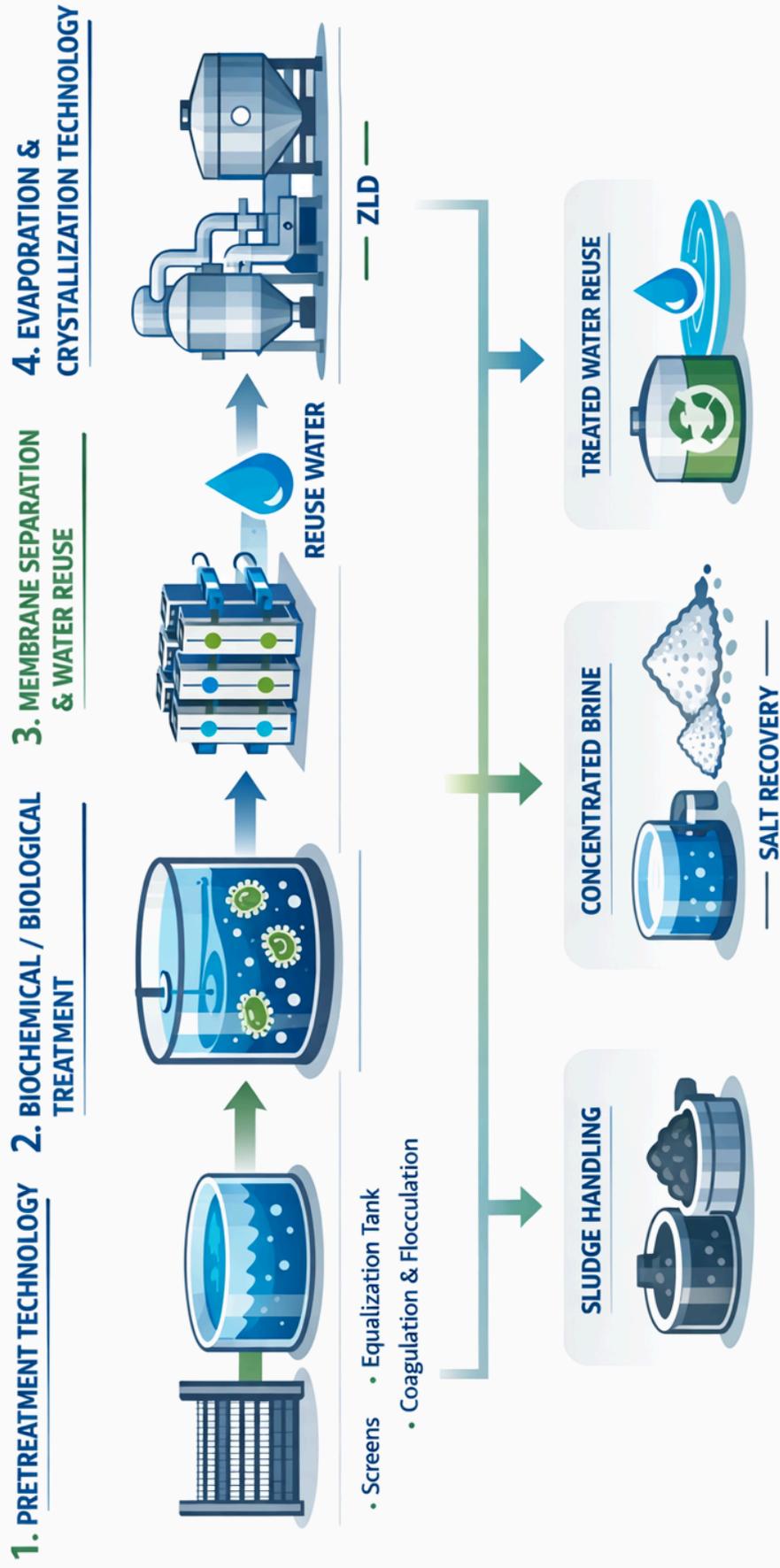
We design, manufacture, and deliver complete process, treatment, and environmental systems, including production equipment, pretreatment and post-treatment facilities, air pollution control systems, and industrial wastewater treatment plants.

Asia Greentech executes projects under flexible delivery and contract models, including EPC, Design-Build, Turnkey, BOT, BOO, and hybrid partnership structures, enabling clients to optimize capital expenditure, operational responsibility, and lifecycle performance.

By delivering proven, constructible, and performance-driven solutions, Asia Greentech supports project owners, EPC contractors, and developers in achieving on-time completion, operational reliability, and long-term environmental compliance.



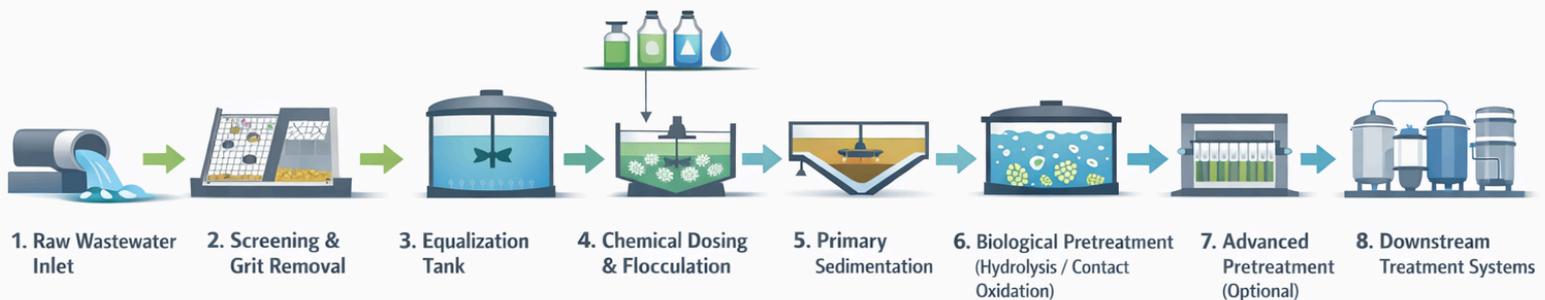
INDUSTRIAL WASTEWATER TREATMENT PROCESS



Pretreatment Technology

Pretreatment systems are designed to stabilize wastewater quality and protect downstream processes. Through precise coagulation, flocculation, pH adjustment, oil separation, and solid-liquid separation, our pretreatment solutions effectively remove suspended solids, oils, and heavy metals—ensuring consistent treatment performance and reduced operating risk.

Industrial Wastewater Pretreatment Process Flow



Key Pretreatment Processes

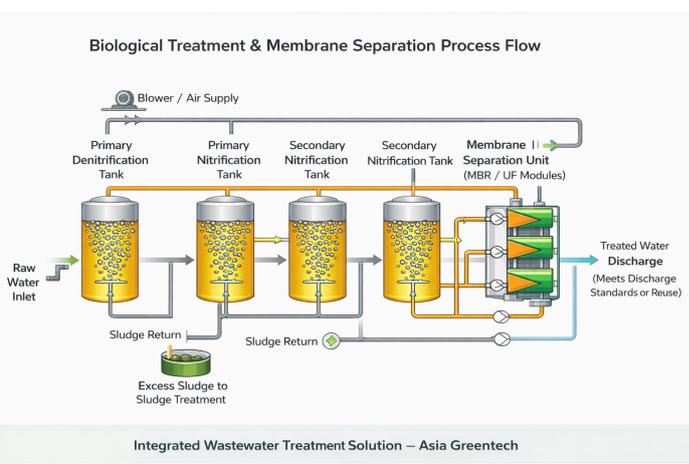
- **Mechanical Pretreatment** – Screening, sedimentation, and filtration to remove coarse and fine solids
- **Chemical Pretreatment** – pH adjustment, coagulation, flocculation, and sedimentation for enhanced solid-liquid separation
- **Biological Pretreatment** – Hydrolysis-acidification and contact oxidation to reduce organic load and improve biodegradability
- **Advanced Pretreatment** – Activated carbon adsorption for dissolved organics, color, and odor control.

Biochemical Technology

Biochemical technology is a core wastewater treatment process that uses the metabolic activity of microorganisms to efficiently remove organic pollutants and nitrogen compounds. Through advanced biochemical system design to deliver stable performance, high removal efficiency, and consistent effluent quality for complex industrial wastewater.

AO Deep Denitrification Process

- Asia Greentech's two-stage and three-stage AO (Anoxic-Oxic) process is engineered for high-ammonia and high-strength wastewater applications.
- Multi-stage configuration enhances carbon source utilization
- Deep and stable nitrogen removal
- Optimized tank volumes and aeration control
- Up to 30% improvement in overall carbon source efficiency



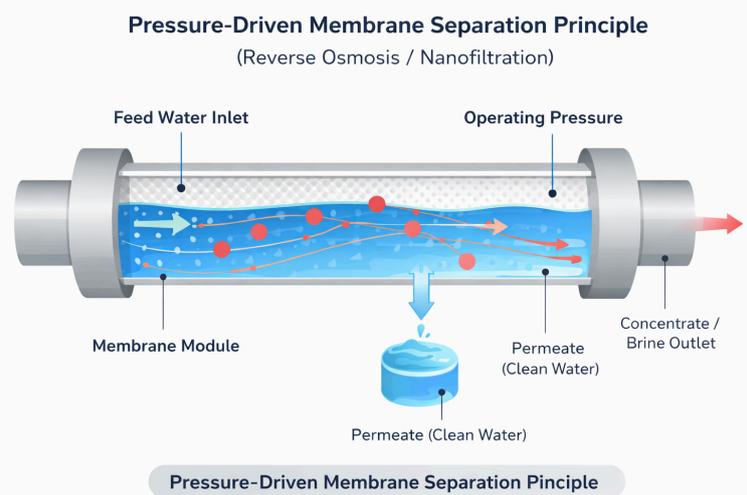
MBR (Membrane Bioreactor) Technology

- MBR technology combines biological treatment with membrane separation to achieve superior effluent quality within a compact footprint.
- High biomass concentration: 15–30 g/L
- Compact design: Biochemical tank volume reduced to ~20% of conventional systems
- Excellent effluent quality: 30 nm membrane pore size, near-zero SS and turbidity
- Suitable for direct RO feed, water reuse, and ZLD systems

Industrial Membrane Treatment & Water Reuse Technologies

Membrane separation technology enables efficient wastewater concentration, resource recovery, and water reuse by selectively removing contaminants while reducing overall wastewater discharge to support industrial water recycling and zero-liquid-discharge (ZLD) applications.

- **Ammonia Stripping –** High-efficiency ammonia removal using pH and temperature control with hydrophobic membranes, recovering ammonia as reusable ammonium salts with low energy use and no secondary pollution.
- **Ultrafiltration (UF) –** Removes suspended solids, colloids, and microorganisms; commonly applied as RO pretreatment to protect downstream membranes.
- **Nanofiltration (NF) –** Selective removal of divalent ions, dissolved solids, and organics for salt separation and partial desalination.
- **Reverse Osmosis (RO) –** Core technology for advanced water treatment and reuse, effectively removing salts, heavy metals, and dissolved contaminants.
- **Electrodialysis (ED) –** Electric-field-driven desalination and concentration, with bipolar membrane options for converting salts into reusable acids and bases.

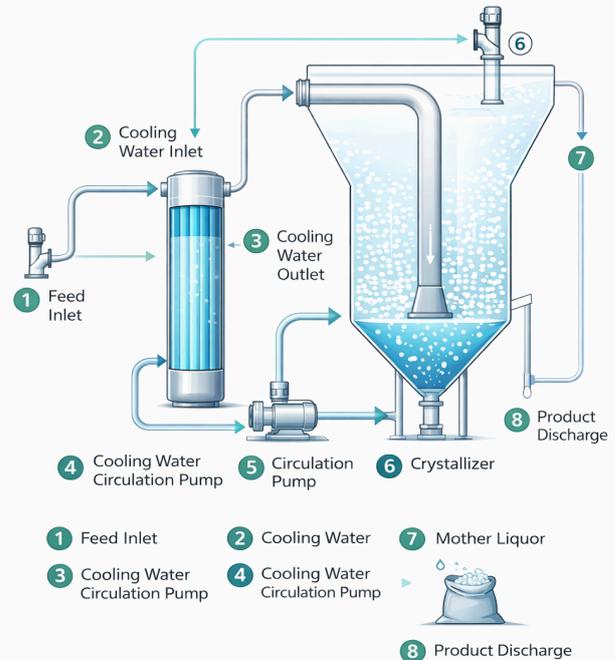


Evaporation Crystallization and Freezing Crystallization Technology

Evaporation Crystallization

Evaporation crystallization is a ZLD technology that removes water through controlled evaporation, recovering dissolved salts as solid crystals. A forced-circulation evaporation design with double-tube heater configuration improves energy efficiency while ensuring stable and reliable crystallization performance for industrial wastewater treatment.

Evaporation-Crystallization System



Freezing Crystallization

Freezing crystallization is a ZLD technology that removes water through controlled cooling, recovering dissolved salts as solid crystals. A forced-circulation design with high-velocity heat exchanger flow improves anti-clogging and ensures stable operation. With no chemical reaction, the process preserves valuable components and delivers high salt recovery for sodium sulfate and industrial wastewater treatment.

Auxiliary Equipment

- Ultrafiltration Membrane
- RO Membrane
- Flat Sheet Membrane
- Hollow Fiber Membrane
- Curtain Membrane
- Filter Cartridge

OUR
PRODUCTS





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