THE FIRST-MOVER OF RESOURCE RECYCLING

**ALKALI RECOVERY FROM DESIZING WASTE WATER**

**FEATURES**
- Water & alkali are fully reused
- Achieve zero liquid discharge
- Advanced membrane technology
- Amount of fresh water & alkali are reduced

![Diagram of desizing wastewater treatment project]

WASTE OIL DISPOSAL & RESOURCE UTILIZATION

**PROCESS**

- Waste mechanical oil
  - Sedimentation
  - Centrifuge
  - Membrane separation
  - Renewable mechanical oil

![Diagram of waste oil treatment process]

Location: Huaqiao dist., China

Monitoring and Analysis Center

Main equipment

Built factory
**WASTE EMULSION DISPOSAL & RESOURCE UTILIZATION**

**APPLICATIONS** Cooling lubricant from machining, electronics, automobile

**ADVANTAGES**
- Environmentally friendly and clean
  - without secondary pollution
- Safety reduction
  - energy consumption reduced by 70%
- Small footprint
  - 68% smaller footprint than traditional processes
- Advanced technology
  - No smoke, no noise, no smell

**Resource recycling and clean**
Annual treatment of 50,000 m³ waste emulsion, the waste oil content is 2%, and the waste oil recovery and adsorption treatment is recovered and regenerated into 1,000 tons of base oil to realize resource recycling.

**PROCESS**

- Waste emulsion collection
- Oil recovery
  - Air floating oil traps
  - Special UF oil and water separation
  - MBR high efficiency MBR
  - Deep oxidation

**Networked collections**, **Standardized transportation**, **Closed production**, **Discharge class A Grade 1**

**BRINE WASTE DISPOSAL & RESOURCE UTILIZATION**

As a byproduct of industry, "brine" is a solution with an extremely high concentration of salts such as sodium chloride, sodium sulfate, ammonium chloride, calcium chloride. These byproducts are typically highly concentrated salt solutions that, in some cases, contain more than twice the amount of concentrated salts than natural brine solutions.

Brine waste can be some of the most challenging to treat or discharge because their composition and purification requirements can be rather dynamic and complex.

Combined with various technologies, we have developed a set of technology and equipment that can truly realize the utilization of brine waste and offer custom-designing and manufacturing brine waste solution systems.
TITANIUM DIOXIDE WASTEWATER SOLUTION

**PROCESS ADVANTAGES**

- **Stable water quality**
  - The SS is less than 1ppm, the turbidity is less than 0.5NTU, and the effluent water quality is stable.

- **Long work life**
  - Acid and alkali resistant, high temperature resistant and high-pressure resistant, work life is longer than 5 years.

- **High effectiveness**
  - Short separation process, continuous operation, short wash cycle.

- **Circular economy**
  - Full recovery of titanium dioxide, product water recycle, chlorination method. Titanium white process combined with caustic soda process form the environmental protection industry chain.

**SAVE FOOTPRINT**

Membrane process replaces sedimentation tank, footprint is much smaller.

**EASY OPERATION**

Short process, less control point, auto control.

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ULTRAFINE POWDER PURIFICATION SOLUTION

**NEW ENERGY BATTERIES**

The pretreatment workshop of Lithium extraction process adopts the international leading gradient coupling membrane separation technology, and the potassium fluoride from salt pans is subjected to magnesium-lithium separation and lithium concentration process to obtain high-purity lithium-rich brine, and is sent to the lithium plant to produce battery-grade lithium carbonate. The operation of the membrane equipment is fully automatic, the lithium yield can reach 80%, and it is at the leading level in the lithium recovery from brine.

**SOLAR ENERGY CLEANER PRODUCTION**

Ceramic membrane technology can directly treat the waste liquid containing silicon powder produced in solar energy production process, collect silicon powder, reuse pure water and coolant. The process can separate silicon powder from pure water, recover more than 98% of silicon powder, reuse more than 90% of pure water and 50% of coolant, and greatly reduce the load of sewage station.

**NEW MATERIALS PURIFICATION**

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