



Product Brochure

Industrial Skid-mounted
Equipment



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High-Efficiency Eddy Air Floatation Separator *P01*

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Hydrophobic and Lipophilic Filter *P02*

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Slurry Oil Filtration System *P05*

The gas dissolution component and the dosing component, a breakthrough improved from the conventional air flotation technology, are integrated, not only making the gas dissolved better, but also reducing the footprint and investment cost. It is mostly used for oil-water separation of produced water in oil production and can replace the traditionally used inclined plate and air flotation device.



Technical advantages

- It is capable of treating a large number of pollutants, 8-10 times of that of the traditional air flotation device.
- It is small and covers a small footprint.
- The compressed gas and chemicals are highly utilized.
- There is a low moisture content in scum.

Applications

Petrochemicals

Oil extraction/refining

Food processing

Vehicle cleaning

Machinery Manufacturing

Para.	Raw wastewater	Design index
Produced water flow	5,000m ³ /d	
Oil mg/L	4000	≤50
TSS mg/L	500	≤50

▶ 5,000m³/d Produced Water Treatment Project of an Offshore Platform



A special process is adopted to make the graphene and adsorption material bounded, so that the adsorption material become oleophilic and hydrophobic. In addition, a simple extrusion/back blowing technology is used to completely regenerate the adsorption materials for reuse and reduction of solid waste.



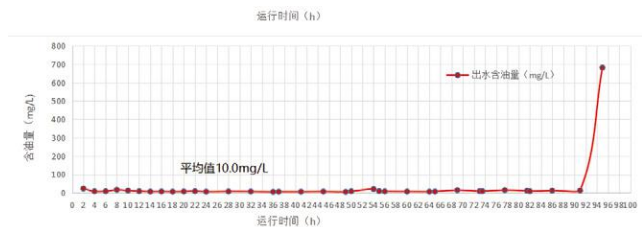
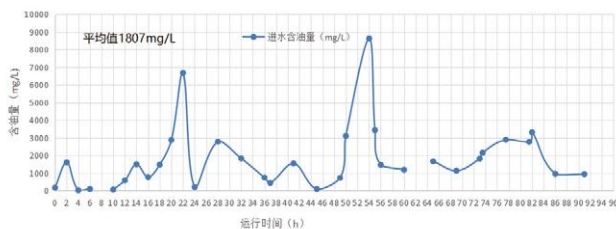
▶ Graphene-based adsorbent materials



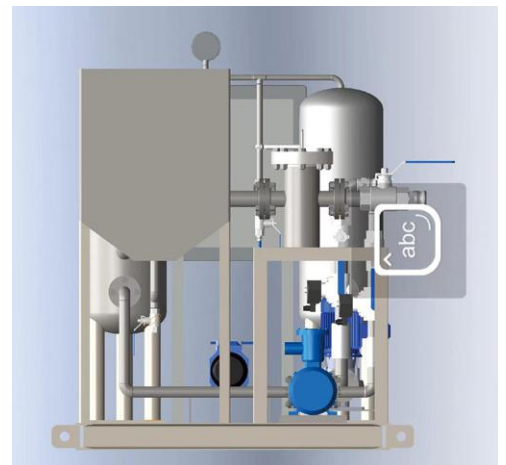
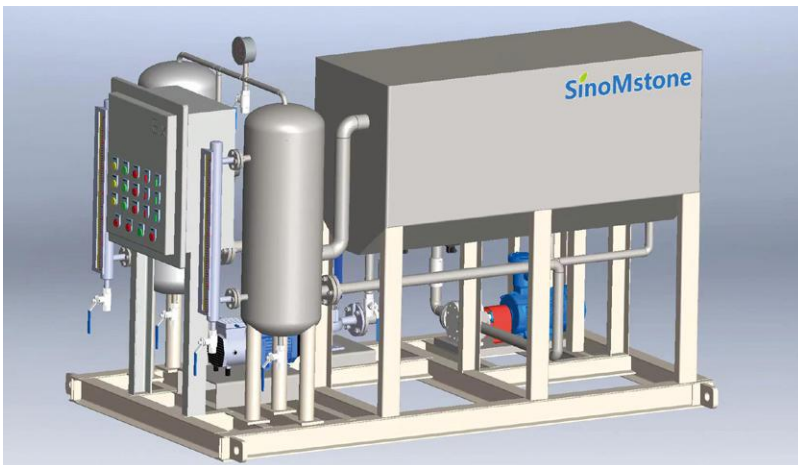
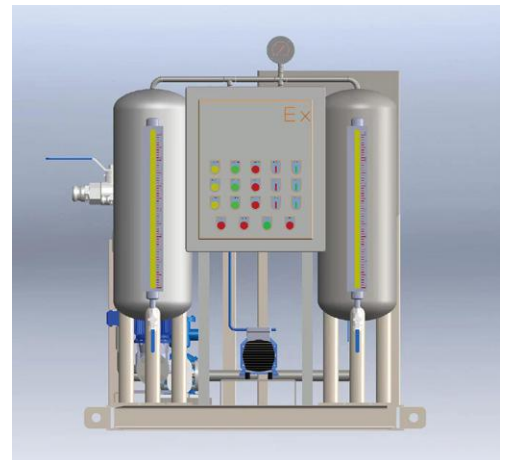
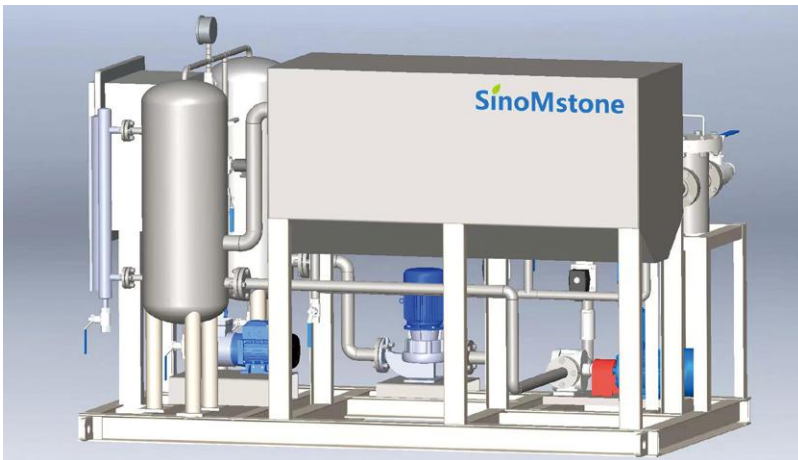
▶ Comparison of Influent and Effluent of Tank Farm Oil Wastewater Treatment Project of a Refining-Petrochemical Enterprise

Product Advantages

- It can efficiently remove the floating oil, emulsified oil and partially dissolved oil in water.
- The core oleophilic hydrophobic adsorption material can be reused and has a long service life.
- No extra chemicals need to be added, and the regenerated oil has a low moisture content and can be recovered.
- It has a high adsorption rate, adsorbing the crude oil more than 120 times of its own weight (traditional adsorption materials are only about 20 times).
- The oil phase desorption rate is high, up to 95%.
- The adsorption material can be regenerated by simple extrusion or reverse blowing, with low energy consumption.



This system, composed of the oil collection and oil-water separation components, uses the oil and water density difference to recover the floating oil on water. It is a purely physical treatment process using the principle of laminar flow and gravity separation. It can be used as an oil collector, and can also be used to separate liquids of different specific gravity. It is a new oil collection equipment that is energy saving, environmentally friendly and efficiently, bringing economic and environmental benefits.



Technical Advantages

- It collects floating oil through overflowing under dynamic equilibrium, and can automatically adapt to liquid level fluctuation.
- It collects the floating oil in a fast and efficient way and the oil collection rate can reach 99% in an environment in which the oil-water density difference is large.
- It has such features as reasonable structure, light weight, small size, easy operation, mobility, small footprint and low energy consumption
- It can be manually lifted and is easy to maintain.
- It automatically runs and is easy to operate.

Slop Tank Farm Treatment Project of a Petrochemical Company



It is suitable for filtration of solid containing wastewater in various industries, such as coolant filtration in machining industry, wastewater treatment in electroplating industry, wastewater treatment in food processing industry, wastewater treatment in petrochemical industry, glass industry, mining industry, building materials industry, etc. All filters for solid-containing wastewater are customized to the customer's site conditions and water quality conditions, and can remove particles that are 0.5 μ m and above.



Product advantages

- High TSS removal rate: >99.99% (TSS can be treated from 1%wt to < 20mg/L)
- High turbidity removal rate: 1000NTU to <10NTU.
- Low energy consumption, low investment and small footprint.
- Fully automatic operation and low failure rate.
- Low moisture content in mud cake (solid content >70%wt).

Catalytic Desulfurization Wastewater Treatment Project of a Petrochemical

Influent flow rate 15m³/h, TSS (after treatment) \leq 30mg/L, and moisture content in mud cake (after treatment) \leq 30%wt



With the proprietary integral metal sintered element, it can filter the particles in liquid efficiently and is widely used for slurry filtration system in refining-petrochemical industry.



Product advantages

- The element has a longer service life.
- Long-term use ensures a lower pressure drop.
- It is more economic.
- It needs a smaller footprint.

Para.	Raw slurry	Design index
Flow rate t/h	18	
Particulate CONC ppmw	200 ~ 1,000	≤20

- ▶ 200,000t/a FGO Filtration Project of a SINOPEC Petrochemical Company
- ▶ Field Installation



Developing and Protecting, Earth Life Better

Tel: +86 0898 28831101

Email: info@mstnland.com

Website: www.mstnland.com

Add: No.201, Unit 2, 3rd office building, Yuangyang Rd, Free trade port area, Yangpu economic development zone, Hainan, P.R.China, 578001

Mobil: +86 130 2127 0021

Fax: +86 0898 28831101

WeChat: +86 130 2127 0021