

Titanium Membrane Module

JIUWU company designs the module with Titanium material. The main application of titanium module is brine filtration.



The module is a complete unit composed of the ceramic membranes, housing, feed inlet, concentrate outlet, and permeate outlet. The ceramic membranes are arranged in parallel and vessel with housings.

OVER VIEW OF TITANIUM MODULE

Ceramic membrane element has a variety of narrow distribution, high porosity, high capacity per unit membrane surface area.

Ceramic membrane element need to be used and operated in normal operation procedures. The following conditions and chemicals of operation are absolutely not allowed, because it may destroy or damage the element:

- Sharp variations in pressure;
- Vigorous variations in temperature, $\Delta \leq 5^{\circ}\text{C}/\text{min}$;
- Meet with strong acid and alkali with high concentration and temperature in a long time such as hydrofluoric acid, sulphuric acid ,hydrochloric acid in combination with stainless steel housings, formic or acetic acid at high concentration and high temperature, silicates, acrylics, varnish, silicon soil, resins, wax;
- Filtering high viscosity liquid or liquid containing large rigid solid granules;
- Using pumps without soft starter or frequency converter;
- Strike or knock on purpose;

CHARACTERISTICS OF TITANIUM MODULE

- Number of loading membrane elements: 19, 37, 61pcs
- Matching membrane element length Diameter: 1100, 1200mm / diameter: 30 mm
- Main body material: Titanium
- Sealing material: EPDM
- Interface: Flange, Clamp, Whorl coupling
- Pressure level: 0-1.0Mpa, 0-1.6Mpa, 0-2.5Mpa, 0-4.0Mpa
- Standard: ISO, DIN/chemical grade, sanitary grade

ADVANTAGE OF TITANIUM MODULE

- Excellent Mechanical properties
- Excellent corrosion resistance, free from atmospheric and sea water
- Acid and corrosion resistant

APPLICATION OF TITANIUM MODULE

Primary Brine Purification

Ceramic Membrane Brine Purification Solution (hereinafter called CBS Process) is a well- proven process which can guarantee to offer high quality, stable and reliable primary brine for a long-term and is also an advanced process option for chlor-alkali companies.

CBS process can also be used for bittern vacuum salt making and the quality of solid salt produced is higher than that of clarification process which can be used as high-quality edible salt or chloralkali salt.