

## SS Membrane Module

The SS ceramic membrane module is designed by different applications. Stainless steel could be used as the material of module/housing, that is, ss membrane housing.

JIUWU company could produce the extra large stainless steel membrane housing as customer demand, such as loading over 91 pcs membranes. It also can be 1, 3, 7, 12, 19, 37, 61, 76, 91, 138, 241 pcs membranes.



### OVER VIEW OF SS CERAMIC MEMBRANE HOUSING

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

Ceramic membrane element needs to be used and operated in normal operating 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 a soft starter or frequency converter;
- Strike or knock on purpose;

### CHARACTERISTICS OF STAINLESS STEEL MEMBRANE HOUSING

- Number of loading membrane elements: 1, 3, 7, 12, 19, 37, 61, 76, 91, 138, 241 pcs
- Matching membrane element length Diameter: 500, 1000, 1200mm / diameter: 25, 30, 40 mm
- Main body material: SUS304 (L), SUS316 (L)
- Sealing material: EPDM, Fluoro Rubber, Silicon, PTFE
- 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

## APPLICATION OF SS CERAMIC MEMBRANE HOUSING

### 1. Food & Beverage

- Sweetener
- Wine (beer membrane filtration)
- Fruit and vegetable juice
- Dairy
- Flavoring and seasoning
- Natural herb extract
- Enzyme

### 2. Bio-Pharm

- Fermentation broth-antibiotic (including purification of antibiotics)
- Fermentation broth-amino acid

### 3. Chemical and Petro-Chemical

- Natural rubber (skim latex)
- polysilicon cutting fluid recovery
- Brine filtration

### 4. Water & Wastewater Treatment ( ceramic membranes for wastewater treatment )

- Oilfield injection water
- Paper industry wastewater treatment
- Textile and printing industry wastewater
- Oily wastewater treatment
- Titanium dioxide water treatment

- Pharmaceutical/chemical industry wastewater
- Desalination/seawater treatment
- Landfill leachate
- Degreasing liquid treatment
- Palm oil wastewater