DELEMIL-HSR-S SERIES

Pure Organic Solvents Resistance NF Membrane

The pure organic solvents resistance NF membrane of HSR-S (High Solvent Resistance) series is suitable for pure organic solvent conditions. If the solvent is more than 95%, it utilizes hydrophobic membrane material and can work normally for 12 months under the following solvent conditions, which can be purified and recycled to reduce the water treatment difficulty and energy consumption.

Membrane Parameter

Product Models	Average Flow Rate GPD (m^3/d)	Average Rejection Rate %
HSR-S 01	12 (0.46)	93%
HSR-S 02	16 (0.6)	88%
HSR-S 10	53 (0.2)	93%
HSR-S 20	70 (0.3)	88%

Note: The average desalination rate is tested after 24 hours operation.
Flow fluctuation range of single membrane could be +25%.
Test Condition: MW 327g/mol, tested in the isopropanol solution, 435 psi operating pressure, 25°C temperature, pH=7.

Parameters of Membrane Operating and Cleaning

Product Models	Max Operating Pressure	Pressure Drop of Single Membrane	Recovery Rate	Max Operating Temperature
HSR-S Series	1200psi	<22psi	15%	60°C

Max Cleaning Temperature	PH Range of Continuous Working	PH Range of Cleaning	Allowable Max Contents of Residual Chlorine	Inlet Water
60°C	2-12	1-12	500ppm-h	NTU <1 SDI < 5

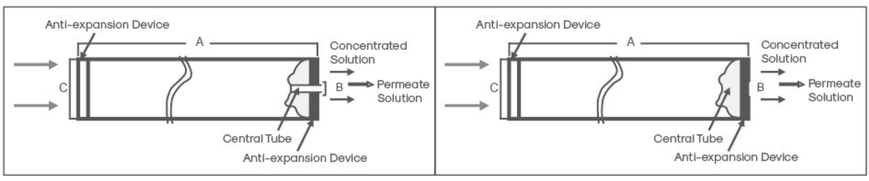
Typical Application

- Medicine: Purify concentrated drugs and intermediate products in the solvent mediums (e.g.: 6-APA)
- Recycling of antibiotics and peptides
- Solvent purification
- Recovery of catalyst from the solution
- Recovery of hydrocarbons during the cleaning process
- Used to remove tar components from FCC raw materials, purification and dewaxing of condensate oil
- Alcohol recovery, extracts concentration, natural compounds concentration, dewaxing and concentration of natural oils, etc.

Typical Chemical Solvents

Typical organic solvents are methanol, ethanol, propanol, ethylene glycol, acetonitrile, acetone, ethyl acetate, dichloromethane, n-hexane, tetrahydrofuran (THF), methylpyrrolidone (NMP), dimethylformamide (DMF), dimethyl adipate (DMA), dimethyl sulfoxide (DMSO), and toluene and so on.

Membrane Schematics



Male Joint Membrane with ATD

Flat Joint Membrane with ATD

Specifications and Parameters

Specifications	Joint	Diameter Inch (cm)			Package Weight (kg)
		A	B	C	
2540	Male Joint	40.00 (101.6)	0.75 (1.9)	2.4 (6.1)	3
4040	Male Joint	40.00 (101.6)	0.75 (1.9)	3.9 (9.9)	4
8040	Flat Joint	40.00 (101.6)	1.125 (2.85)	7.9 (20.1)	16

Special Notes:

- All membrane components are packed under the dry/semi-dry conditions;
- Each membrane element is equipped with an accessory kit, fitted with a connector and 4 O-rings.

Storage Conditions

- Before the first use, all membrane elements must be stored under the original packaging conditions.
- The membrane is best placed in the original packaging and opened before the using of water treatment system.
- The transport temperature below 0°C may cause irreversible membrane damage, and the transport temperature above 30°C may cause membrane degradation and deterioration of the protection solution.
- Store in a cool, dry condition and the place where is not directly exposed to sunlight or artificial lighting. Storage temperature stays at 0°C to 30°C, and the longest storage time is 6 months.

General Information

- Once wetted, the membrane element must always be wet.
- The limited warranty we promised will expire due to the fact that the user does not strictly follow the operational restrictions and guidelines set forth in this Code.
- If the system is in a shut down state for a long time, the membrane element is advised to be placed in the protective solution to prevent the growth of microorganisms.
- It is the user's responsibility if use an incompatible chemical and lubricant, and cause undue influence on the original.
- The maximum allowable pressure drop of single pressure vessel is 60 psi (4.1bar).
- At no time can the backpressure be produced on the side of producing water to avoid the occurrence of harmful problems.