

AR20-50 ACID-STABLE SPECIAL SEPARATION SPIRAL-WOUND MEMBRANE ELEMENT

Performance Characteristics

AR20-50 acid-stable special separation spiral-wound membrane element can achieve metal concentration in acidic solutions such as the sulfuric acid with concentration less than 20% and phosphoric acid with concentration less than 30%, which can be used in acidic liquid purification. Such membrane elements can keep high flux in the strong acid conditions and operate stably for over 12 months.

Membrane Specifications

Parameters of Membrane Element

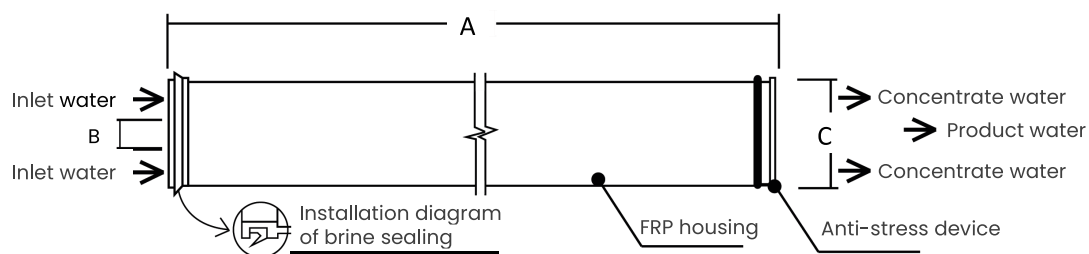
| Model | Average Flow Rate gpd(m ³ /d) | Average Salt Rejection % | Test Conditions |
|---------|---|-----------------------------|-----------------|
| AR20-50 | 13000 (48.9) | 96.0% | 1 |

Notes: Average salt rejection is tested after 24 hours operation. Fluctuation range of single membrane flow rate could be ±25%.

Test condition 1: 2,000ppm MgSO₄ solution, 580psi operating pressure, 25°C temperature, PH 7, 15% recovery rate.

Schematic Diagram and Dimensions

Figure 1



| Product model | Connector | Diameter, inch (cm) | | | Weight (KG) |
|---------------|----------------|---------------------|--------------|------------|-------------|
| | | A | B | C | |
| 8040 | Flat connector | 40.00 (101.6) | 1.125 (2.85) | 7.9 (20.1) | 16 |

Operating Conditions

| | |
|--|--------------|
| Product model | AR20-50 |
| Max. operating pressure | 1200psi |
| Pressure drop of single membrane element | <8psi |
| Recovery rate | 15% |
| Max. operating temperature | 80°C |
| Max. cleaning temperature | 80°C |
| Continuous working PH range | 0.0-12.0 |
| Cleaning PH range | 0.0-13.0 |
| Max. allowable residual chlorine | 500ppm-h |
| Inlet water | NTU<1, SDI<5 |

Storage Conditions

- Before the first use, all membrane elements must be stored under the original packaging conditions.
- The transport temperature below 0°C may cause irreversible membrane damage, on the contrary, 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. Storage temperature is kept between 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.
- If the user uses incompatible chemicals and lubricants to cause improper influence on the membrane elements, the user shall bear the corresponding responsibilities.
- The maximum allowable pressure drop of single pressure vessel is 60 psi (4.1bar).
- At no time can the back pressure be produced on the side of producing water to avoid the occurrence of bad problems.