



# AR03-50 ACID-STABLE SPECIAL SEPARATION SPIRAL-WOUND MEMBRANE ELEMENT

#### > Performance Characteristics

AR03-50 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

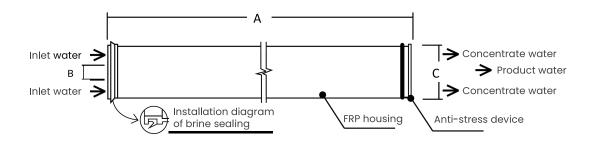
| Model   | Average Flow Rate gpd(m³/d) | Average Salt<br>Rejection % | Test Conditions |  |
|---------|-----------------------------|-----------------------------|-----------------|--|
| AR03-50 | 3200 (11.9)                 | 92.0%                       | 1               |  |

**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 MgSO $_4$  solution, 580psi operating pressure, 25  $^\circ$ C temperature, PH 7, 15% recovery rate

# ≥ Schematic Diagram and Dimensions

Figure 1



| Product model | Connector      | Diameter, inch (cm) |            |           | Mainht (KC) |
|---------------|----------------|---------------------|------------|-----------|-------------|
|               |                | Α                   | В          | С         | Weight (KG) |
| 4040          | Male connector | 40.00 (101.6)       | 0.75 (1.9) | 3.9 (9.9) | 6           |





## Operating Conditions

**Product model** AR03-50 Max. operating pressure 1200psi Pressure drop of single membrane element <8psi **Recovery rate** 15% Max. operating temperature 80℃ Max. cleaning temperature 80℃ Continuous working PH range 0.0 - 12.0Cleaning PH range 0.0 - 13.0Max. 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.