

## AMESTEC NANOFILTRATION SPECIAL SEPARATION SPIRAL-WOUND MEMBRANE ELEMENT

### Performance Characteristics

Amestec nanofiltration special separation spiral-wound membrane element HG series adopts exclusive composite membrane, using no charged organic molecules side to intercept the substances of 150-300 Dalton molecular weight, making monovalent salts penetrating while intercepting divalent salts.

**Table 1 Membrane Parameters**

Product models	Spacer (mil)	Flow rate gpd(m <sup>3</sup> /d)	Average salt rejection %	Housing
HG-TK8040F35	35	8200	98.00%	FRP
HG-TK8040F50	50	6400	98.00%	FRP
HG-TK8040C35	35	8400	98.00%	Sanitary grade
HG-TK8040C50	50	6800	98.00%	Sanitary grade
HG-TL8040F35	35	10800	96.00%	FRP
HG-TL8040F50	50	8400	96.00%	FRP
HG-TL8040C35	35	11100	96.00%	Sanitary grade
HG-TL8040C50	50	8900	96.00%	Sanitary grade
HG-TP8040F35	35	6900	99.00%	FRP
HG-TP8040F50	50	5400	99.00%	FRP
HG-TP8040C35	35	7100	99.00%	Sanitary grade
HG-TP8040C50	50	5700	99.00%	Sanitary grade
HG-TK4040F35	35	2000	98.00%	FRP

Product models	Spacer (mil)	Flow rate gpd(m <sup>3</sup> /d)	Average salt rejection %	Housing
HG-TK4040F50	50	1500	98.00%	FRP
HG-TK4040C35	35	2000	98.00%	Sanitary grade
HG-TK4040C50	50	1500	98.00%	Sanitary grade
HG-TL4040F35	35	2600	96.00%	FRP
HG-TL4040F50	50	2000	96.00%	FRP
HG-TL4040C35	35	2700	96.00%	Sanitary grade
HG-TL4040C50	50	2000	96.00%	Sanitary grade
HG-TP4040F35	35	1700	99.00%	FRP
HG-TP4040F50	50	1300	99.00%	FRP
HG-TP4040C35	35	1700	99.00%	Sanitary grade
HG-TP4040C50	50	1300	99.00%	Sanitary grade

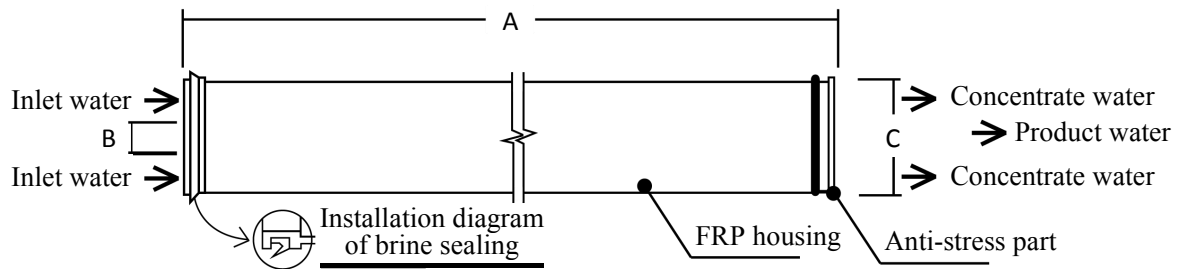
Notes: Average salt rejection is tested after 24 hours operation. Fluctuation range of single membrane flow rate could be  $\pm 25\%$ .

Test condition: 2, 000ppm MgSO<sub>4</sub> solution, 580psi operating pressure, 25°C temperature, 15% recovery rate.

**Table 2 Dimensions and Weight**

Product models	Dimension, inch (cm)			Weight (kg)
	A	B	C	
HG-TK8040F35	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TK8040F50	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TK8040C35	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TK8040C50	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TL8040F35	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TL8040F50	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TL8040C35	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TL8040C50	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TP8040F35	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TP8040F50	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TP8040C35	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TP8040C50	40(101.6)	1.125(2.86)	7.9(20.1)	14
HG-TK4040F35	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TK4040F50	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TK4040C35	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TK4040C50	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TL4040F35	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TL4040F50	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TL4040C35	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TL4040C50	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TP4040F35	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TP4040F50	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TP4040C35	40(101.6)	0.75(1.90)	3.9(9.9)	4.5
HG-TP4040C50	40(101.6)	0.75(1.90)	3.9(9.9)	4.5

**Figure 1**



## Operating Conditions

Product model	HG-TK/HG-TL/HG-TP Series
Max. operating pressure	600psi
Typical operating pressure	110psi
Pressure drop of single membrane element	<8psi
Recovery rate	15%
Max. operating temperature	50°C
Max. cleaning temperature	50°C
Continuous working PH range	3-9
Cleaning PH range	2-10.5
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.
- The membrane element must be operated under the conditions that environmental and operating parameters of temperature, pressure, pH, SDI of inlet liquid, turbidity and etc shall not exceed the scopes stated in the membrane operation and maintenance manual.
- 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.
- Only the detergent, bactericide, dispersant or other chemical accepted by the Supplier can be used with the membrane elements. The Buyer shall be liable for knowing materials of the membrane elements and make sure that the chemical substances that will do harm to the membrane elements or materials never contact with the membrane elements.
- 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.