VONTRON **SW8040HR-400 Membrane Element**

Brief Introduction

SW series of aromatic polyamide compound membrane element developed by Vontron Membrane Technology Co., Ltd. is applicable to desalination of seawater. By optimizing the structure of membrane element, the SW series increases the permeate flow, and requires fewer elements for same permeate flow. It is characterized by low operating pressure, low investment in equipment, excellent rejection rate and reliable performance.

Applicable to treatment of seawater and high-concentration brackish water, the SW series of membrane element is designed for various industrial water treatment, such as seawater desalination, high-concentration brackish water desalting, boiler water replenishment for power plant, and various fields such as recycling of wastewater, concentration and reclamation of such substances with high additional value as foodstuff, pharmaceuticals, etc.

Characters of SW8040HR-400 Membrane Elements:

High rejection rate, stable rejection rate 99.8%.

High deboration rate, ensure the safety of drinking water.

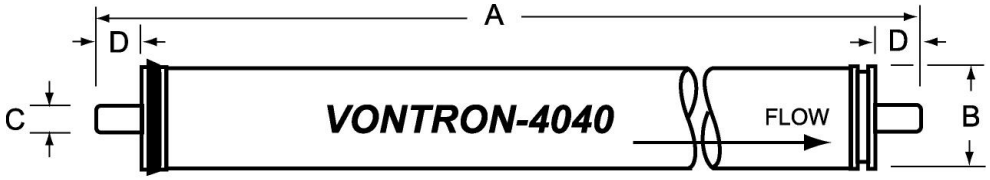
Lower energy consumption, reduce the investments and operation costs.

Higher cross-linking index of polyamide layer, wider pH range of cleaning solution (1~13).

Model	Active Membrane Area $ft^2(m^2)$	Average Permeate GPD(m^3/d)	Stable Rejection Rate %	Min. Rejection Rate %
SW8040HR-400	400（37.2）	7500（28.4）	99.8	99.7

Testing Conditions	Testing Pressure	800 psi (5.5Mpa)
	Testing Solution Temperature	25 ℃
	Concentration of Testing Solution (NaCl)	32800ppm
	pH value of Testing Solution	7.5
	Recovery Rate of Single Element	8 %
Operation Limits & Conditions	Max. Working Pressure	1200psi（8.3Mpa）
	Max. Volume of Feed water	75gpm（17 m^3/h）
	Max. Temperature of Feed water	45℃
	Max. Feed water SDI_{15}	5
	pH Range of Feed water during Continuous Operation	3～10
	pH Range of Feed Water during Chemical Cleaning	1～13
	Residual Chlorine Concentration of Feed Water	＜0.1ppm
	Max. Pressure Drop of Single Membrane Element	15psi（0.1Mpa）
	Max. Pressure Drop of Single Pressure Vessel with Six RO Membranes	50psi（0.34Mpa）

Size of Membrane Element： 1.0 inch = 25.4 mm



A/mm(inch)	B/mm(inch)	C/mm(inch)	D/mm(inch)
1016.0(40)	99.7(3.9)	19.1(0.75)	26.7(1.05)

Notice:

1. All data and information provided in this manual have been obtained from long-term experiment by Vontron. We confirm the effective and accuracy of the data. Vontron assumes no liability for any aftermath caused by user's failure in abiding by the conditions specified in this manual in use or maintenance of membrane products. It is strongly recommended that the user shall strictly abide the designed use and maintenance requirements and keep relevant records.
2. The permeate value listed in the table is the average value. The permeate flow of single membrane element is tolerance not exceeding ±15% of the nominal value.
3. All wet-type membrane elements have been strictly tested before leaving the factory, and have been treated with 1.0% sodium hydrogen sulfite (10% glycerin antifreeze required in winter) for storage purpose, then sealed with plastic bag in vacuum, and further packed in carton boxes.
4. The membrane used should remain wet after being used; In long term suspension, to prevent the breeding of microbes, soak the membrane elements with protective solution is highly recommended, the solution (prepared with RO filtered water) containing 1.0% sodium hydrogen sulfite (foodstuff-purpose).
5. Operate low pressure flushing for 15-25 minutes of first use, high pressure flushing for 60-90 minutes when first use (Permeate volume no less than 50% of designed volume). Discard all the permeate and condensed water produced during the first one hour after system start-up.
6. During storage time and operation period, it is strictly prohibited to added any chemical medicament that may be harmful to membrane elements. In case of any violation in adding chemical medicament, Vontron assumes no liability for any damages incurred.
7. Along with technical development and product renovation, all information will be subject to modification without prior notification. Please keep notice the website of Vontron for any updates of the product.