VONTRON **VNF1- 8040 Membrane Element**

Brief Introduction

VNF series nanofiltration membrane element is used to remove organic substances, microorganisms, viruses and most of the divalent and multivalent metal ions in water, at the same time to keep part of sodium, potassium, calcium and magnesium ions, it has been widely used in municipal drinking water, bottle water, food and beverage, medicine, bioengineering, pollution control and other industries.

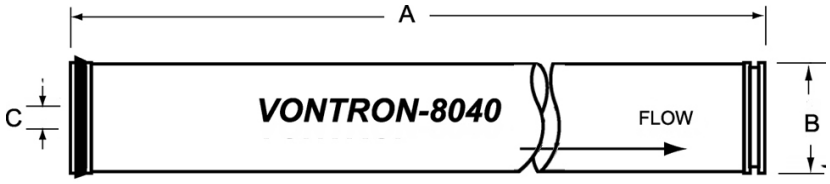
VNF series membrane element has good rejection rates for pesticides, herbicides, TOC and heavy metal ions. The rejection rate of VNF1 for monovalent ions is relatively low, and the rejection rate of VNF2 for monovalent ions is relatively high.

Model	**Active Membrane Area** $ft^2(m^2)$	**Average Permeate** GPD(m^3/d)		**Stable Rejection Rate** %
VNF1-8040	400（37.2）	NaCl	12000（45.4）	30~50
		$MgSO_4$	10000（37.9）	≥98

Testing Conditions	Testing Pressure	100 psi (0.69Mpa)
	Testing Solution Temperature	25 ℃
	Concentration of Testing Solution (NaCl/$MgSO_4$)	2000ppm
	pH value of Testing Solution	7.0±0.5
	Recovery Rate of Single Element	15%
Operation Limits & Conditions	Max. Working Pressure	600psi（4.14Mpa）
	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	2～12
	Residual Chlorine Concentration of Feed Water	＜0.1ppm
	Max. Pressure Drop of Single Membrane Element	15psi（0.1Mpa）

*VNF minimum rejection rate of $MgSO_4$ is 96%.

Size of Membrane Element： 1.0 inch = 25.4 mm



A/mm(inch)	B/mm(inch)	C/mm(inch)
1016 (40)	201 (7.9)	29 (1.125)

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 ±20% 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.