

Challenge Low-energy Consumption and Zero Emissions Driving Force for the Recycling of Resources

ZERO-HP70 High Pressure

High pressure reverse osmosis membrane element. The highly desalinated membrane product is developed for TDS 15000-35000 ppm brine concentration. Based on the SW serial element to improve the performance of the bearing higher pressure, and the Zeta potential and hydrophilicity of the membrane are also improved.



The Maximum Operating Pressure is 80 bar

The Highest Concentration of NaCl is 70g/L



Enhanced Component Structure

Stable Operation in High Pressure Environment



Patent U-arc water Distribution* Endcap*

Hydraulic Load Distribution is more Uniform

Product Features



Applications

- √ Intermediate Concentration and Reduction Stage of Zero Liquid Discharge Technology
- √ Suitable for TDS 15-35 g/L of Feed Water



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*Invention Patent No.: CN207822312 U

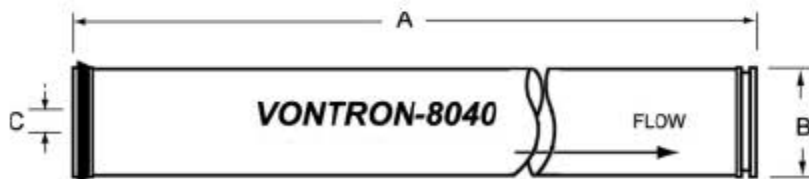
VONTRON ZERO-HP70 Membrane Element

Brief Introduction

ZERO-HP 70 is a series of high pressure reverse osmosis membrane element. The highly desalinated membrane product is developed for TDS 15000-35000 ppm brine concentration. Based on the SW serial element to improve the performance of the bearing higher pressure, and the Zeta potential and hydrophilicity of the membrane are also improved.

Model	Active Membrane Area ft ² (m ²)	Permeate Flow GPD(m ³ /d)	Stable Rejection %	Feed Spacer Thickness mil
ZERO-HP70	400(37.2)	8800(33.3)	99.75	34
Testing Position	Operating pressure 800psi (5.52MPa)			
	Temperature at 25°C			
	Tested at 32000mg/L NaCl solution			
	pH 8.0			
	Recovery rate at 8%			
Operating	Maximum operating pressure		1200psi (8.28MPa)	
	Maximum feedwater flow		75gpm (17m ³ /h)	
	Maximum feedwater temperature		45°C	
	Maximum feedwater flow SDI ₁₅		5	
Limit & Conditions	Allowed pH range for feedwater in operation		2~11	
	Allowed pH range for chemical cleaning		1~13	
	Maximum concentration of free chlorine		<0.1 mg/L	
	Maximum pressure drop per element		15psi (0.1MPa)	

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:

- 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 $\pm 20\%$ 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 initial wetting; 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 add 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.