

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

ZERO-UHP120 Ultra-high Pressure

Ultra-high pressure reverse osmosis membrane element. The membrane product is developed for TDS 35000-70000 ppm brine concentration with a maximum operating pressure up to 120 bar, suitable for concentration and reduction of high salt waste water discharge.



The Maximum Operating Pressure is 120 bar
The Highest Concentration of NaCl is 100 g/L



Enhanced Component Structure Stable
Operation in High Pressure Environment

Product Features



Applications

- ✓ Extreme Concentration and Reduction Stage of Zero Liquid Discharge Technology
- ✓ Suitable for TDS 35-70 g/L of Feed Water



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Tel:+86 10-83619831
E-mail:sales@vontron.com

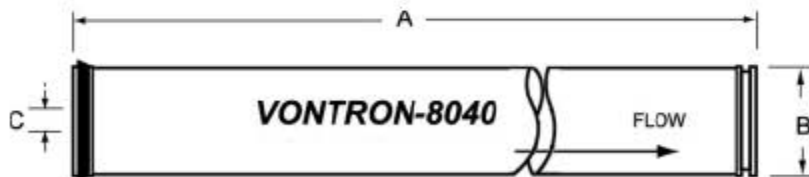
VONTRON ZERO-UHP120 Membrane Element

Brief Introduction

ZERO-UHP 120 is a series of ultra-high pressure reverse osmosis membrane element. The membrane product is developed for TDS 35000-70000 ppm brine concentration with a maximum operating pressure up to 120 bar, suitable for concentration and reduction of high salt waste water discharge.

Model	Active Membrane Area ft ² (m ²)	Permeate Flow GPD(m ³ /d)	Stable Rejection %	Feed Spacer Thickness mil
ZERO-UHP120	330(30.7)	7400(28.0)	99.7	28
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		1740psi (12.0MPa)	
	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		3~10	
	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.